BENTON HARBOR POWER PLANT LIMNOLOGICAL STUDIES

PART XXV. PHYTOPLANKTON OF THE SEASONAL SURVEYS OF 1976, OF SEPTEMBER 1970, AND PRE- vs. POST-OPERATIONAL COMPARISONS AT COOK NUCLEAR PLANT

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INTRODUCTION

This report extends our reporting of the Lake Michigan phytoplankton by adding a previously unreported preoperational survey of September 1970 and by adding the surveys of operational 1976.

Parts of the material presented have been used in the Indiana & Michigan Cook Plant Environmental Operating Report for 1977, but here other materials have been added, including the appendices of physical data and of phytoplankton station collections which were not in the company report.

The strategy for detecting changes in the phytoplankton community near the Cook Plant involves comparisons of phytoplankton abundances in three depth zones near the plant to abundances in the same three depth zones at distances two miles or more away from the plant. In any one survey these comparisons are spatial but, repeated over time, they allow temporal comparisons as well. The temporal comparisons primarily consist of comparing conditions in preoperational years against operational years. Conditions in preoperational years provide a measure of natural variation against which variations in operational years may be compared to detect possible plant-related perturbations.

This report serves the double purpose of recording the results of previously unreported seasonal surveys of September 1970 and of spring, summer, and fall of 1976, and of presenting preliminary analyses of possible plant effects on the phytoplankton according to the strategy outlined above.

Figure 1 shows the station positions of the present 36-station sampling grid centered on the Cook Plant. This grid, used after April 1972, replaced an earlier 54-station grid. Table 1 compares the two sampling grids and shows the stations dropped and stations retained in changing to the 36-station grid.

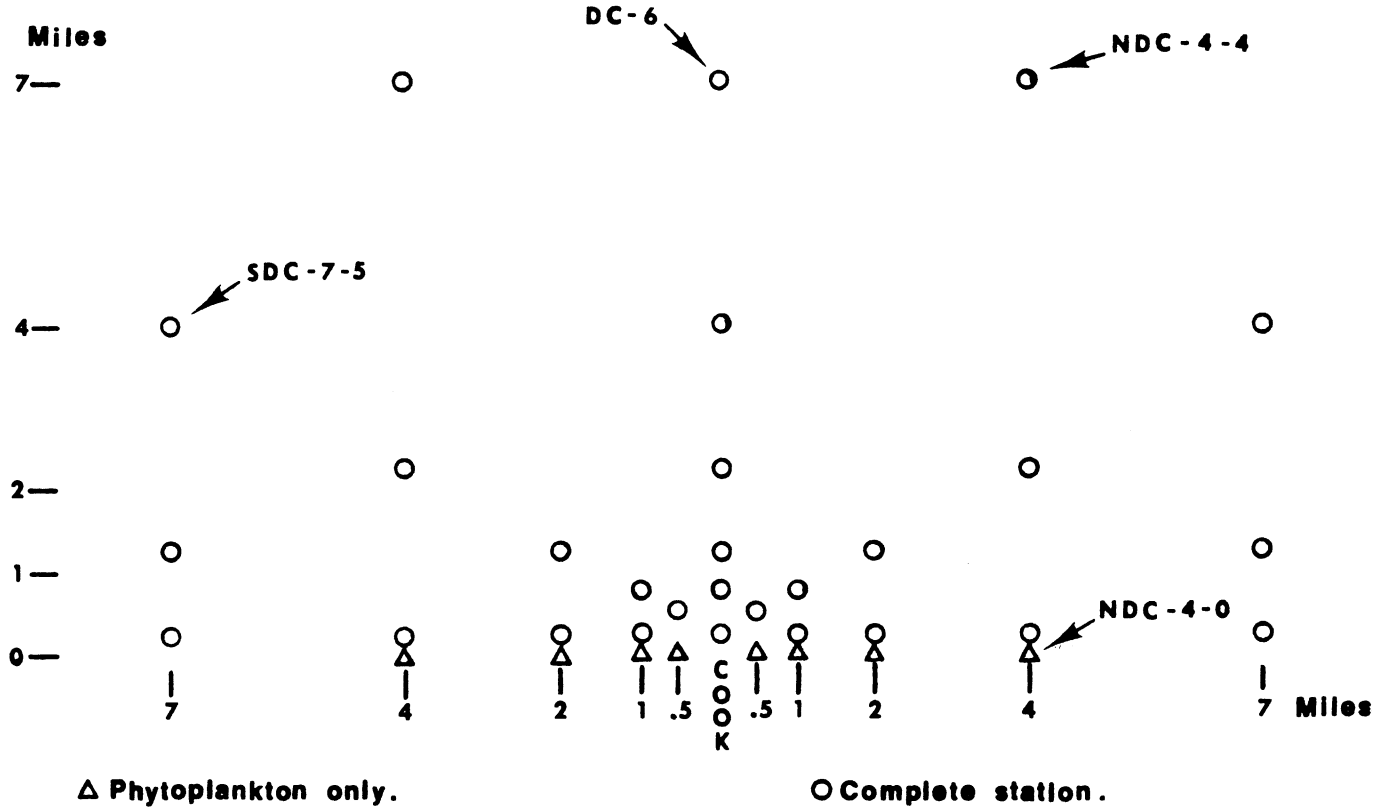

FIG. 1. The present 36-station Cook Plant sampling grid, used after April of 1972. The stations are designated as follows: SDC stations are located south of the plant, NDC stations are north of the plant, and DC stations are directly offshore of the plant. The first number of the designation is the number of miles north or south of the plant. The second number is the serial number of the station from shore lakeward. The serial number of the phytoplankton-only stations is 0.

TABLE 1. Comparison of the original 54-station seasonal sampling grid to the 36-station sampling grid which was instituted in the July 1972 seasonal survey at Cook Plant. X denotes a retained station. -- denotes an omitted station.

Station	54-station grid	36-station grid	Station	54-station grid	36-station grid
DC-1	X	X	NDC-7-3	X	X
DC-2	X	X	NDC-7-4	X	--
DC-3	X	X	NDC-7-5	X	X
DC-4	X	X	SDC-.25-1	X	--
DC-5	X	X	SDC-.5-0	X	X
DC-6	X	X	SDC-.5-1	X	--
NDC-.25-1	X	--	SDC-.5-2	X	X
NDC-.5-0	X	X	SDC-.5-3	X	--
NDC-.5-1	X	--	SDC-1-0	X	X
NDC-.5-2	X	X	SDC-1-1	X	X
NDC-.5-3	X	--	SDC-1-2	X	X
NDC-1-0	X	X	SDC-1-3	X	--
NDC-1-1	X	X	SDC-2-0	X	X
NDC-1-2	X	X	SDC-2-1	X	X
NDC-1-3	X	--	SDC-2-2	X	--
NDC-2-0	X	X	SDC-2-3	X	X
NDC-2-1	X	X	SDC-2-4	X	--
NDC-2-2	X	--	SDC-4-0	X	X
NDC-2-3	X	X	SDC-4-1	X	X
NDC-2-4	X	--	SDC-4-2	X	--
NDC-4-0	X	X	SDC-4-3	X	X
NDC-4-1	X	X	SDC-4-4	X	X
NDC-4-2	X	--	SDC-7-1	X	X
NDC-4-3	X	X	SDC-7-2	X	--
NDC-4-4	X	X	SDC-7-3	X	X
NDC-7-1	X	X	SDC-7-4	X	--
NDC-7-2	X	--	SDC-7-5	X	X

At all complete stations in Figure 1 phytoplankton, zooplankton, benthos, and physical measurements are collected during the seasonal surveys. The physical measurements consist of surface-water temperature, water depth, bottom type, Secchi disc water transparency, and water color as seen above the white 20-cm Secchi disc, as well as weather conditions and wind and wave characteristics. The seasonal physical data are given in Appendix A.

TECHNIQUES

Phytoplankton samples were collected by Niskin bottle from a depth of 1 m, with the exception of the nearshore stations. Nearshore collections (serial number zero stations) were made by submerging an open 1-liter bottle 4 inches below the water surface. All samples were 1-liter whole samples. Each sample was fixed with Utermohl's iodine fixative immediately after collection and stored in an opaque container.

In the laboratory, each sample was concentrated to 100 ml by settling for two days in a 1000-ml graduate cylinder and then siphoning off 900 ml of fluid. The concentrated sample was stored in a 100-ml opaque bottle.

The samples of 1970, 1971, and of April 1972 were prepared and counted by the Utermohl technique: placing an aliquot of the concentrated sample in a tubular combination settling and counting chamber and allowing the aliquot to settle overnight. The counting chamber containing the settled cells was then separated from the settling chamber, covered, and placed on the microscope. The samples were counted on a binocular inverted microscope at 1000X magnification.

Beginning with July 1972, and continuing since, the method of concentration for species identification and enumeration has been the settle-freeze method (Sanford et al. 1969). This method entails two days' settling of 1000 ml of sample in a graduated cylinder. The third day the top 900 ml are siphoned off and discarded. Part of the remaining 100 ml is used for preparation for the microscope slide and the rest is kept for any possible further references or back checking.

The once-settled sample is then diluted if need be and settled again, this time in 18-ml cylinders. These cylinders are attached with a small

amount of stopcock lubricant (to prevent leakage) to the microscope slides which rest on an aluminum plate one quarter inch thick. The whole apparatus is then secured together mechanically. The microscope slides, prior to having the cylinders placed on them, were treated with Dessicote to provide a hydrophobic surface to the slide. After the samples have settled overnight, the aluminum plate on which they rest is placed on a block of dry ice for 90 seconds or less. This freezes the bottom 1-1.5 ml. The unfrozen part is then discarded and the cylinders are removed from the slides. The slides are then placed in an anhydrous ethanol chamber for 2 days, and then in a toluene chamber for 2 days.

The first chamber removes the water and the second prepares the samples for their final mounting in toluene-based Permount. One drop of Permount is put on the slide, a cover slip is placed over it, and the slide is allowed to dry for two days or more.

The specimens are counted, at 1200X under oil immersion on a Leitz Ortholux microscope, tc species, variety and form when practical, otherwise to genus or group. Only those specimens that appear to have been viable at the time of collection are counted. Two sweeps of the slide are made, one vertical and one horizontal. This provides an indication of the randomness of the species on the slide.

All species are counted to individual cells, except for filamentous blue-green algae with cylindrical trichomes which are counted as individual organisms.

Phytoplankton abundances derived from the counts are calculated as cells per liter, but are divided by 1000 in the computer print-outs.

Prior to July 1972 (erroneously reported as 1973 in Seibel and Ayers 1974) identification and counting of phytoplankton were carried out by the

Utermohl settling-tube and inverted microscope method. In July 1972 the settle-freeze method was adopted because of the significantly greater numbers of phytoplankton forms that can be identified to species by this method. The settle-freeze method, however, involves one more settling and decantation than does the Utermohl method and organisms are lost by adhering to the sides of the settling chambers. In our cross-comparisons of the methods, reported in Seibel and Ayers (1974), the Utermohl method gave counts averaging 1.8 times more than counts by settle-freeze. The low phytoplankton numbers which we here report from before July 1972 would have been substantially lower had they been done by the settle-freeze method.

RESULTS AND DISCUSSIONS

It is believed that coherence is better achieved if presentation of results is not separated from discussion of the results. It is anticipated that the reader will have no difficulty in distinguishing between the objective presentation of the results and the subjective discussion of the results.

The Thermal Bar of 14 April 1976

Temperature conditions in the waters of the Cook Plant survey grid in April are frequently such that the 4° C isotherm passes through the grid. The presence of the 4° isotherm defines the presence of the so-called thermal bar. Because the thermal bar is a region of convergence and sinking lying between warmer water inshore and colder water offshore it is frequently cited as being a barrier to the mixing of the waters inshore and offshore from it. If convergence along the bar is a truly dominant feature it might

be expected that the converging surface water movements would carry phytoplankton to the bar from both sides and that phytoplankton densities there would be higher. For this reason we have made it a policy to report thermal bar conditions when they are encountered in Cook Plant April surveys.

Ayers, Mozley, and Stewart (1974) have reported on a thermal bar condition found in the survey grid on 15 April 1971. Ayers, Southwick, and Robinson (1977) have reported thermal bar conditions found on 20 April 1974 and on 17 April 1975. Thermal bars were not present in the grid in the Aprils of 1972 or 1973.

On 14 April 1976 the thermal bar lay within the lakeward edge of the survey grid with water temperatures well below 4° C in the three outermost stations and temperatures of $9\text{-}10^{\circ}$ in stations along the beach. The position of the thermal bar and isopleths of phytoplankton densities in cells/ml are presented in Figure 2. Isolated pockets of densities in excess of 6000 cells/ml were present near shore at the northern and southern ends of the grid and at station SDC-2-1 two miles south of the plant. Densities decreased away from shore, falling to 920 cells/ml at station DC-6 seven miles offshore.

Figure 3 shows by histograms the mean numbers of phytoplankters by 1 C° temperature intervals across the thermal bar on 14 April 1976. Numbers within each histogram bar show the numbers of samples averaged for that temperature interval. The histograms show no concentration of phytoplankton at the thermal bar, instead, they show a general increase in densities from the coldest water offshore to the warmest near the shore.

Phytoplankton Summary Tables

The phytoplankton summary tables employed here are based on the ones used by the Michigan Water Resources Commission in reporting their

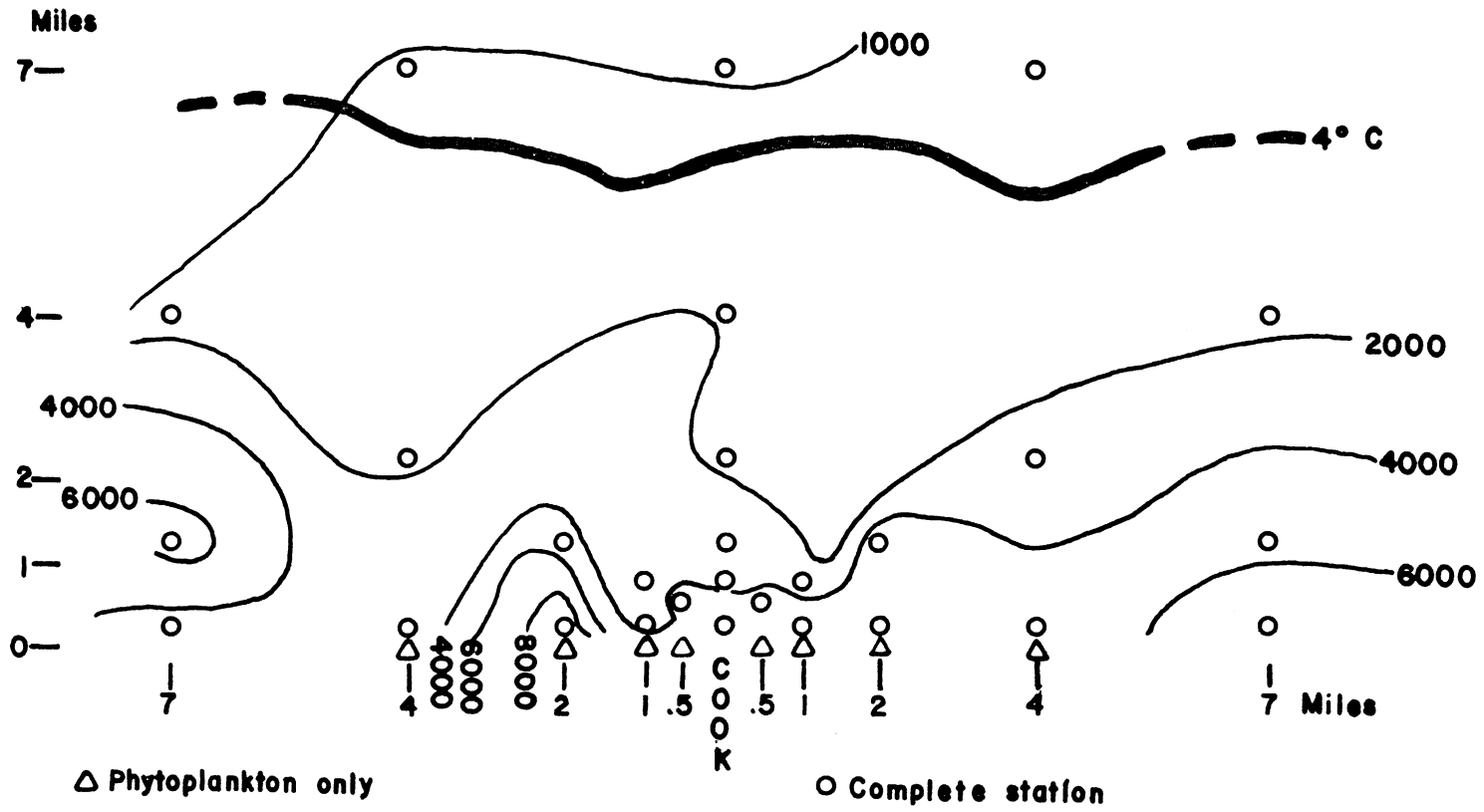

FIG. 2. The distribution of phytoplankton densities (in cells/ml) during the thermal bar condition of 14 April 1976. The thermal bar is indicated by the 4° C isotherm.

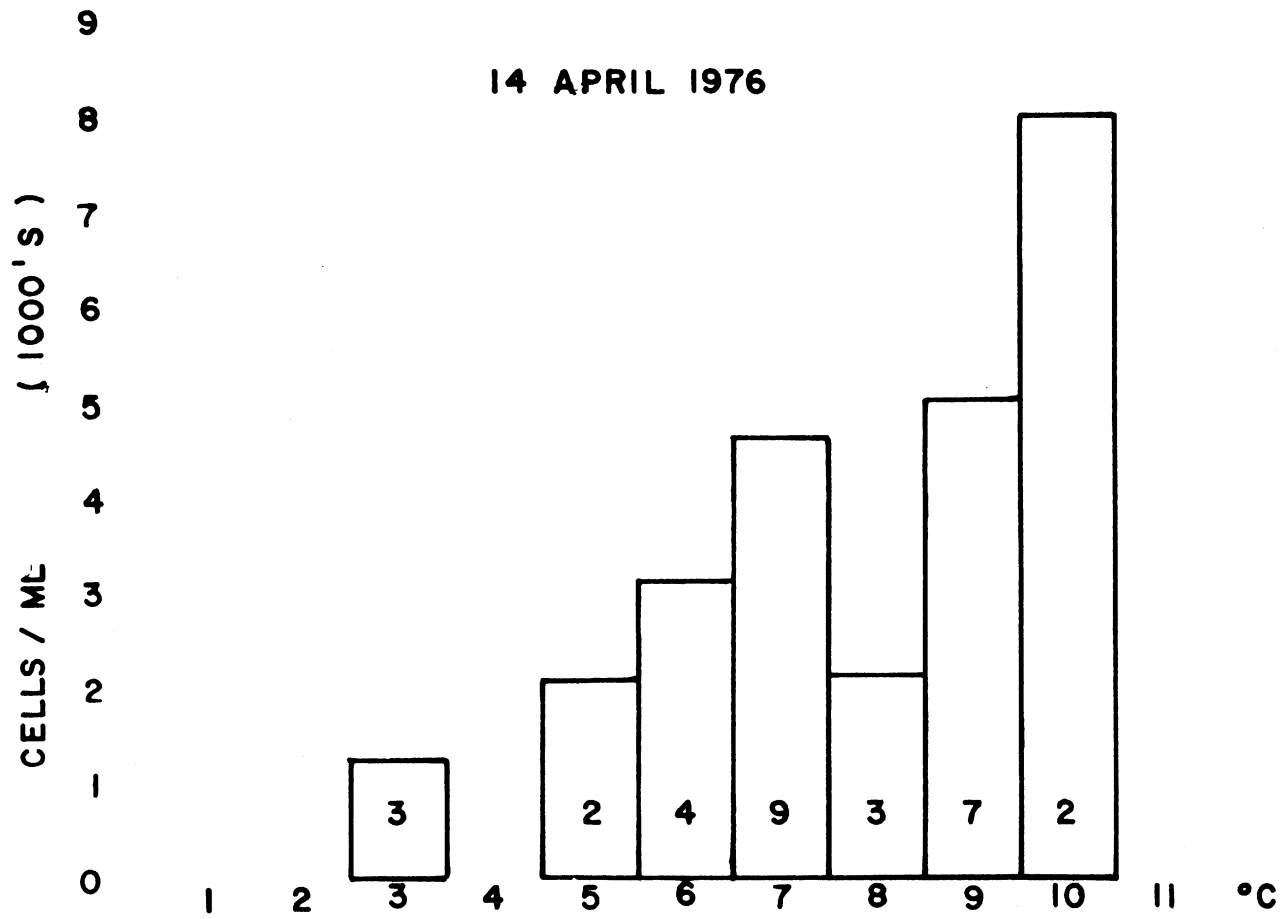

FIG. 3. Histogram of averaged phytoplankton densities (cells per ml) by 1^{0} C water temperature intervals during the thermal bar condition of 14 April 1976. Numbers within the bars are the numbers of samples averaged.

phytoplankton collections. Our summaries differ from theirs in that we count the numbers of cells in filamentous and colonial forms (except blue-green algae with cylindrical trichomes which are counted as individual organisms), while the Commission counts a filament or colony as a single organism. The station collection records from which the summaries for September 1970 and the three surveys of 1976 were prepared constitute Appendix B.

The summary table for each seasonal survey presents, station-by-station, the surface-water temperature at the time of collection, the numbers per ml of each of ten major categories of phytoplanktonic algae, and the dominant (and codominant, see below) species or groups. The categories of phytoplankton employed are: coccoid blue-green algae, filamentous blue-green algae, coccoid green algae, filamentous green algae, flagellates, centric diatoms, pennate diatoms, desmids, other algae, and total algae. The summary tables allow quick assessment of the general compositions of the populations sampled, the ambient water temperature, and give the dominant and codominant species or groups (forms). The summary tables given in Table 2 summarize the surveys of September 1970 and April, July, and October 1976. The surveys of July and November 1970 have been reported by Ayers et al. (1971) and Ayers, Mozley, and Roth (1973).

Dominant and Codominant Phytoplankters

In each phytoplankton sample one form (species or group) is typically present in greater abundance than the others. We designate these species or groups as "dominant." In many samples, however, one or more other species or groups will come close to matching the numbers of the dominant form; we designate these slightly less abundant forms "codominants" and list them along with the dominant in the "Dominant species" column of Table 2.

TABLE 2. Phytoplankton summary tables.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
					25 SEPTEMBER 1970							
DC-2	20.2	11.1	2.3	94.4	0.9	38.2	2.8	0.0	0.0	5.5	155.2	Gloeocystis sp.
DC-3	19.0	17.5	3.7	80.1	4.6	161.2	21.2	55.3	0.0	6.4	350.0	Chlamydomonas sp.
DC-4	19.2	16.6	10.1	37.8	0.0	78.3	16.6	17.5	0.0	8.3	185.2	Chlamydomonas sp.
DC-5	19.8	19.3	0.0	70.9	0.9	92.1	0.9	5.5	0.0	2.8	192.5	Chlamydomonas sp. Oocystis sp.
DC-6	20.0	34.1	2.8	38.7	0.0	48.8	6.4	15.7	0.0	7.4	153.8	Chroococcus limneticus Oocystis sp. Chlamydomonas sp. Fragilaria crotonensis
NDC-.25-1	20.0	15.7	2.8	54.3	0.0	87.5	28.6	3.7	0.0	2.8	195.3	Oocystis sp. Gloeocystis sp. Melosira granulata Peridinium sp.
NDC-.5-0	ND	4	1.8	31.3	0.0	133.5	162.1	167.6	3.7	18.4	526.9	Chlamydomonas sp. Fragilaria crotonensis Melosira granulata
NDC-.5-1	18.0	11.1	4.6	40.1	1.4	133.1	47.0	37.3	0.9	6.0	280.5	Chlamydomonas sp.
NDC-.5-2	20.0	12.0	1.4	99.5	0.5	58.0	2.8	4.6	0.0	11.1	189.8	Gloeocystis sp.
NDC-.5-3	19.1	8.3	0.9	33.2	1.8	85.7	13.8	33.2	0.0	6.4	183.3	Chlamydomonas sp.
NDC-1-0	ND	1.8	1.8	32.2	2.8	53.4	54.3	70.9	0.0	7.4	224.8	Melosira granulata Tabellaria fenestrata Oocystis sp.
NDC-1-1	17.9	6.4	0.0	33.2	0.0	81.1	14.7	29.5	0.0	416.4	581.2	Unknown green cells
NDC-1-2	19.4	9.7	2.3	68.6	0.5	98.1	5.5	2.3	0.5	13.8	201.3	Gloeocystis sp. Ochromonas sp.
NDC-1-3	19.0	9.2	2.8	35.0	0.9	43.3	2.8	0.9	0.0	1.8	99.7	Oocystis sp. Chlamydomonas sp.
NDC-2-0	ND	12.9	0.0	13.8	0.0	30.4	216.5	221.1	0.0	15	510.3	Fragilaria crotonensis Melosira granulata Melosira granulata v. angustissima
NDC-2-1	17.8	21.2	2.8	24.9	2.8	70.9	87.2	53.4	0.0	7.4	215.5	Dinobryon divergens
NDC-2-2	18.0	27.6	8.3	43.3	3.7	350.0	91.2	134.5	0.9	33.2	692.7	Chlamydomonas sp.
NDC-2-3	19.0	11.1	3.2	76.0	0.5	133.1	2.3	0.9	0.0	12.9	240.0	Ochromonas sp.

TABLE 2. continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
25 SEPTEMBER 1970 cont.												
NDC-2-4	19.0	35.9	3.7	42.4	0.9	123.4	0.0	38.7	0.0	66.3	311.3	Chlamydomonas sp.
NDC-4-0	ND	12.0	0.0	18.4	0.0	47.0	534.3	469.8	0.0	24.9	1106.3	Fragilaria crotonensis Melosira granulata
NDC-4-1	17.6	28.6	0.9	32.2	0.0	113.3	62.6	219.2	0.0	16.6	473.5	Fragilaria crotonensis
NDC-4-2	17.8	7.4	3.7	27.6	1.8	200.8	62.6	141.9	1.8	44.2	491.9	Chlamydomonas sp. Fragilaria crotonensis
NDC-4-3	18.2	10.1	5.5	67.2	1.8	235.8	29.5	87.5	0.0	13.8	451.4	Chlamydomonas sp.
NDC-4-4	19.5	68.2	1.4	98.1	0.0	123.0	1.8	23.9	0.5	6.4	323.3	Chlamydomonas sp. Chroococcus limneticus Oocystis sp.
NDC-7-1	19.2	15.7	0.0	36.8	2.8	169.5	242.3	370.3	0.9	5.5	843.8	Fragilaria crotonensis
NDC-7-2	18.8	18.4	5.1	54.8	2.3	139.1	42.8	114.7	0.5	10.1	387.8	Fragilaria crotonensis
NDC-7-3	18.5	12.9	4.6	44.2	2.8	292.9	70.0	38.7	1.8	17.5	485.4	Chlamydomonas sp.
NDC-7-4	18.2	15.7	6.0	53.4	4.6	235.4	26.3	34.5	0.5	23.9	400.2	Chlamydomonas sp.
NDC-7-5	18.2	14.7	0.0	36.8	0.9	104.1	40.5	33.2	0.9	46.1	277.3	Cryptomonas sp. Chlamydomonas sp.
SDC-.25-1	19.5	7.8	1.4	33.6	0.5	64.5	7.8	12.0	0.0	6.4	134.0	Chlamydomonas sp. Oocystis sp.
SDC-.5-0	ND	8.3	1.4	22.1	0.5	93.5	82.4	75.5	1.4	14.7	299.8	Chlamydomonas sp. Melosira granulata
SDC-.5-1	18.0	12.0	3.7	20.3	2.8	72.8	89.4	47.0	5.5	19.3	272.7	Melosira granulata
SDC-.5-2	19.5	8.3	0.9	28.6	1.8	76.5	41.5	19.3	0.0	4.6	181.5	Dinobryon divergens Cyclotella sp.
SDC-.5-3	19.0	18.4	2.8	19.3	0.0	74.6	8.3	3.7	0.0	11.1	138.2	Chlamydomonas sp.
SDC-1-0	ND	22.1	0.0	38.7	1.8	291.1	204.5	304.0	0.0	23.9	886.1	Chlamydomonas sp. Fragilaria crotonensis
SDC-1-1	18.0	22.1	0.9	29.5	0.0	70.0	48.8	67.2	0.0	33.2	271.7	Dinobryon divergens Melosira granulata v. angustissima Fragilaria crotonensis Closteriopsis sp. Oocystis sp.
SDC-1-2	19.0	8.3	2.8	60.8	2.8	143.7	17.5	5.5	0.0	5.5	246.9	Chlamydomonas sp. Dinobryon divergens

TABLE 2. continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
25 SEPTEMBER 1970 cont.												
SDC-1-3	19.0	24.4	3.2	30.9	0.5	109.6	7.8	4.1	0.0	9.7	190.2	Chlamydomonas sp.
SDC-2-0	ND	7.8	1.8	10.1	0.0	39.6	16.1	21.2	0.9	34.1	131.7	Tetraedron minimum
SDC-2-1	18.0	8.3	0.9	59.0	2.8	210.9	28.6	47.9	0.9	16.6	375.8	Chlamydomonas sp.
SDC-2-2	18.5	17.0	2.8	37.3	0.0	108.7	11.5	20.7	1.8	10.6	210.5	Dinobryon divergens
SDC-2-3	18.6	30.4	6.4	34.1	0.9	145.5	0.0	33.2	0.9	4.6	256.1	Chlamydomonas sp.
SDC-2-4	19.2	50.2	2.3	37.8	0.5	53.0	0.0	0.9	0.0	6.0	150.6	Chlamydomonas sp. Oocystis sp. Chroococcus limneticus
SDC-4-0	ND	10.6	0.0	14.3	1.4	90.7	62.6	149.2	0.0	12.0	340.8	Fragilaria crotonensis
SDC-4-1	18.0	5.1	1.8	121.1	0.0	128.5	2.3	4.6	0.0	8.8	272.2	Gloeocystis sp.
SDC-4-2	18.2	11.1	1.4	87.0	1.4	133.6	5.1	5.1	0.0	23.5	268.1	Ochromonas sp. Gloeocystis sp.
SDC-4-3	18.2	17.5	2.8	36.4	2.3	79.2	4.1	7.8	0.0	5.1	155.2	Dinobryon divergens Oocystis sp.
SDC-4-4	19.0	23.9	1.8	43.3	0.5	91.2	10.1	72.8	0.5	5.1	249.2	Fragilaria crotonensis
SDC-7-1	19.0	22.1	2.8	14.7	0.9	64.5	1.8	24.9	0.9	6.4	139.1	Chlamydomonas sp. Peridinium sp. Dinobryon divergens Chroococcus limneticus
SDC-7-2	18.8	17.5	1.4	41.9	1.8	136.3	9.2	26.3	0.0	5.5	240.0	Dinobryon divergens
SDC-7-3	18.8	7.4	0.5	101.8	0.0	86.1	1.8	4.6	0.0	10.1	212.3	Gloeocystis sp.
SDC-7-4	18.4	12.9	4.6	23.9	2.8	79.2	0.9	14.7	0.0	10.1	149.2	Chlamydomonas sp. Dinobryon divergens
SDC-7-5	19.0	25.8	1.8	42.4	1.8	127.1	16.6	97.6	1.8	5.5	320.6	Fragilaria crotonensis Chlamydomonas sp. Dinobryon divergens

TABLE 2. continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
					14 APRIL 1976							
DC-0	ND	0.0	39.8	155.9	6.6	1512.2	3607.9	2832.0	0.0	116.1	8270.4	Stephanodiscus sp.
DC-1	7.4	0.0	33.2	116.1	0.0	1671.3	1810.6	1913.4	0.0	149.2	5693.8	Flagellates
DC-2	7.0	0.0	69.6	29.8	0.0	1134.1	1213.7	1081.1	3.3	53.1	3584.7	Flagellates Asterionella formosa Fragilaria crotonensis
DC-3	6.1	116.1	33.2	13.3	152.5	842.3	1021.4	1034.6	6.6	82.9	3302.9	Flagellates Rhizosolenia gracilis Asterionella formosa
DC-4	5.1	0.0	9.9	58.0	0.0	631.7	532.2	547.2	0.0	9.9	1789.1	Flagellates
DC-5	6.2	0.0	16.6	59.7	0.0	776.0	477.5	490.8	0.0	82.9	1903.5	Flagellates
DC-6	2.9	16.6	6.6	5.0	0.0	591.9	237.1	28.2	0.0	34.8	920.2	Flagellates
NDC-.5-0	ND	0.0	89.5	315.0	29.8	659.9	2407.5	4105.4	3.3	119.4	7729.9	Fragilaria crotonensis
NDC-.5-1	7.3	497.4	82.9	112.7	530.6	89.5	1717.8	262.0	0.0	119.4	3412.3	Stephanodiscus minutus Anacystis incerta
NDC-.5-2	7.3	0.0	76.3	132.6	424.5	1001.5	1651.4	4035.7	0.0	0.0	7322.0	Fragilaria crotonensis
NDC-1-0	ND	13.3	56.4	13.3	13.3	587.0	1853.7	3568.2	0.0	49.7	6154.7	Fragilaria crotonensis
NDC-1-1	7.1	0.0	39.8	195.7	185.7	1160.6	1087.7	2165.4	0.0	56.4	4891.3	Fragilaria crotonensis Flagellates Asterionella formosa
NDC-1-2	7.0	13.3	36.5	36.5	46.4	666.5	792.6	683.1	0.0	13.3	2288.1	Flagellates Stephanodiscus sp.
NDC-2-0	ND	285.2	182.4	255.3	99.5	1565.2	2318.0	2261.6	0.0	136.0	7103.1	Flagellates Asterionella formosa Stephanodiscus sp.
NDC-2-1	7.5	0.0	102.8	46.4	0.0	1064.5	1522.1	2553.4	0.0	39.8	5329.0	Fragilaria crotonensis Asterionella formosa Flagellates
NDC-2-3	6.0	1326.5	145.9	132.6	0.0	1668.0	1114.2	1266.8	0.0	99.5	5753.5	Flagellates Anacystis incerta
NDC-4-0	ND	0.0	109.4	43.1	0.0	606.9	1472.4	1711.1	0.0	33.2	3976.0	Fragilaria crotonensis Stephanodiscus sp. Asterionella formosa
NDC-4-1	7.0	931.8	86.4	89.5	43.1	785.9	1392.8	2019.5	0.0	33.2	5382.1	Fragilaria crotonensis Gomphosphaeria lacustris
NDC-4-3	5.0	0.0	23.2	28.2	457.6	994.8	424.5	411.2	0.0	41.5	2381.0	Flagellates

TABLE 2. continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
14 APRIL 1976 cont.												
NDC-4-4	2.9	0.0	1.7	9.9	114.4	1026.3	238.8	56.4	0.0	16.6	1464.1	Flagellates
NDC-7-1	9.5	0.0	199.0	102.8	0.0	1631.5	2367.7	2613.1	0.0	205.6	7119.7	Fragilaria crotonensis Stephanodiscus subtilis Flagellates
NDC-7-3	9.5	0.0	86.2	97.8	0.0	1615.0	2221.8	1348.0	0.0	154.2	5523.0	Flagellates Unknown centric diatom Stephanodiscus sp.
NDC-7-5	6.1	293.5	24.9	16.6	79.6	421.1	406.2	230.5	0.0	48.1	1520.4	Anacystis incerta Flagellates
SDC-.5-0	ND	169.1	109.4	33.2	33.2	623.4	2659.5	2062.6	0.0	79.6	5770.1	Asterionella formosa Stephanodiscus sp. Fragilaria crotonensis
SDC-.5-1	9.5	364.8	132.6	69.6	56.4	1336.4	2327.9	2510.3	0.0	136.0	6934.0	Fragilaria crotonensis Asterionella formosa Stephanodiscus subtilis
SDC-.5-2	9.2	0.0	79.6	82.9	159.2	1057.8	1575.2	1860.3	3.3	76.3	4894.6	Flagellates Asterionella formosa
SDC-1-0	ND	397.9	208.9	480.8	278.6	2142.2	4500.0	3166.9	0.0	334.9	11510.3	Stephanodiscus sp. Asterionella formosa Flagellates
SDC-1-1	8.5	53.1	36.5	73.0	364.8	772.7	1379.5	596.9	0.0	162.5	3438.8	Ulothrix sp. Unknown centric diatom
SDC-1-2	7.1	0.0	74.6	139.3	145.9	817.4	772.7	1615.0	1.7	71.3	3637.8	Fragilaria crotonensis Asterionella formosa
SDC-2-0	ND	248.7	36.5	89.5	0.0	686.4	2550.1	1435.9	0.0	89.5	5136.7	Stephanodiscus sp. Stephanodiscus subtilis
SDC-2-1	10.5	0.0	106.1	145.9	298.5	2566.7	3040.9	3445.5	0.0	298.5	9901.9	Fragilaria crotonensis Flagellates
SDC-2-3	8.8	789.2	79.6	73.0	0.0	902.0	974.9	1372.9	0.0	29.8	4221.4	Anacystis incerta Asterionella formosa
SDC-4-0	ND	0.0	26.5	43.1	0.0	497.4	981.6	1910.1	0.0	46.4	3505.1	Fragilaria crotonensis Asterionella formosa
SDC-4-1	9.0	0.0	33.2	61.3	117.7	480.8	714.6	1105.9	0.0	325.0	2838.6	Asterionella formosa Fragilaria crotonensis
SDC-4-3	8.1	13.3	21.6	19.9	0.0	565.4	436.1	848.9	0.0	5.0	1910.1	Fragilaria crotonensis Flagellates

TABLE 2 . continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
14 APRIL 1976 cont.												
SDC-4-4	3.0	0.0	9.9	53.1	0.0	955.0	291.8	76.3	0.0	8.3	1394.4	Flagellates
SDC-7-1	9.0	0.0	59.7	26.5	0.0	1157.3	1207.1	994.8	0.0	36.5	3481.9	Flagellates Fragilaria crotonensis Stephanodiscus subtilis Stephanodiscus minutus
SDC-7-3	9.8	0.0	82.9	142.6	235.4	1913.4	1906.8	1611.6	0.0	222.2	6114.9	Flagellates Asterionella formosa
SDC-7-5	8.0	0.0	3.3	29.8	0.0	215.5	339.9	429.4	0.0	8.3	1026.3	Fragilaria crotonensis Asterionella formosa Rhizosolenia gracilis
14 JULY 1976												
DC-0	ND	0.0	5.0	310.1	5.0	379.7	572.0	567.1	0.0	200.6	2039.4	Gloeocystis sp. Flagellates
DC-1	23.8	0.0	0.0	424.5	0.0	492.4	245.4	79.6	1.7	155.9	1399.4	Gloeocystis sp. Flagellates
DC-2	22.0	99.5	560.4	374.7	0.0	316.7	338.2	36.5	0.0	134.3	1860.3	Anabaena flos-aquae Gloeocystis sp.
DC-3	21.1	9.9	460.9	127.7	3.3	669.9	127.7	28.2	3.3	51.4	1482.3	Flagellates Anabaena flos-aquae
DC-4	21.3	0.0	334.9	172.4	0.0	731.2	140.9	28.2	0.0	61.3	1469.0	Flagellates Anabaena flos-aquae
DC-5	21.8	58.9	34.0	249.5	0.0	293.5	160.0	19.9	0.0	68.0	883.7	Flagellates
DC-6	21.8	331.6	46.4	336.6	0.0	696.4	165.8	13.3	0.0	54.7	1644.8	Gomphosphaeria lacustris Flagellates
NDC-.5-0	ND	0.0	218.9	1134.1	13.3	1479.0	1943.3	2268.2	6.6	650.0	7713.3	Fragilaria crotonensis Gloeocystis sp.
NDC-.5-1	23.0	165.8	51.4	373.1	0.0	525.6	286.8	227.2	0.0	149.2	1779.1	Flagellates
NDC-.5-2	23.1	0.0	211.4	267.8	0.8	424.5	291.8	113.6	0.0	52.2	1362.1	Flagellates
NDC-1-0	ND	0.0	66.3	411.2	0.0	776.0	1313.2	868.8	6.6	590.3	4032.4	Pediastrum duplex Flagellates
NDC-1-1	22.5	194.8	41.5	587.8	3.3	956.7	369.7	281.0	5.0	320.0	2759.8	Flagellates
NDC-1-2	22.9	41.5	257.0	210.6	0.0	612.7	104.5	83.7	0.0	44.8	1354.6	Flagellates
NDC-2-0	ND	0.0	36.5	228.8	13.3	271.9	1117.5	1246.9	0.0	185.7	3100.6	None dominant

TABLE 2. continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
14 JULY 1976 cont.												
NDC-2-1	22.2	218.9	188.2	270.3	1.7	420.3	213.1	93.7	2.5	111.1	1519.6	Flagellates Gloeocystis sp. Anabaena flos-aquae Anacystis incerta
NDC-2-3	20.2	41.5	53.1	144.3	0.0	179.1	117.7	28.2	0.0	5.0	568.7	Gloeocystis sp. Flagellates Cyclotella stelligera
NDC-4-0	ND	0.0	29.8	580.3	6.6	464.3	2457.3	1538.7	6.6	470.9	5554.5	Unknown centric diatom
NDC-4-1	21.8	414.5	58.0	175.8	0.0	414.5	288.5	127.7	1.7	73.0	1553.6	Gomphosphaeria lacustris
NDC-4-3	20.3	215.5	87.0	136.8	0.0	132.6	128.5	29.8	0.0	2.5	732.9	Anacystis incerta
NDC-4-4	21.7	74.6	89.5	286.8	0.0	461.8	120.2	53.1	0.0	5.8	1091.8	Flagellates
NDC-7-1	22.9	0.0	74.6	505.7	0.0	565.4	210.6	44.8	0.0	112.7	1513.8	Flagellates Gloeocystis sp.
NDC-7-3	22.0	103.6	83.7	246.2	4.1	660.7	146.7	44.8	0.0	31.5	1321.5	Flagellates
NDC-7-5	21.9	27.4	89.5	179.9	0.0	362.3	199.0	0.8	0.0	9.9	868.8	Flagellates
SDC-.5-0	ND	0.0	19.9	527.3	9.9	782.6	1263.4	799.2	3.3	447.7	3853.3	Flagellates Unknown centric diatom Gloeocystis sp.
SDC-.5-1	22.7	49.7	152.5	389.6	0.0	782.6	321.7	114.4	0.0	165.8	1976.4	Gloeocystis sp. Flagellates
SDC-.5-2	22.8	348.2	18.2	291.8	5.0	393.0	207.3	150.9	3.3	96.2	1513.8	Gomphosphaeria lacustris Flagellates
SDC-1-0	ND	0.0	0.0	530.6	9.9	252.0	679.8	1482.3	0.0	82.9	3037.6	Fragilaria crotonensis Gloeocystis planctonica
SDC-1-1	23.1	447.7	59.7	1066.1	1.7	399.6	185.7	180.7	1.7	203.9	2546.8	Gomphosphaeria lacustris Gloeocystis sp. Oocystis sp.
SDC-1-2	22.8	3.3	343.2	303.4	0.0	585.3	233.8	28.2	0.0	38.1	1535.4	Anabaena flos-aquae Flagellates
SDC-2-0	ND	13.3	39.8	1200.4	0.0	842.3	2075.9	1061.2	3.3	520.6	5756.8	Unknown centric diatom
SDC-2-1	23.5	0.0	81.2	155.9	0.0	626.7	194.0	69.6	0.0	49.7	1177.2	Flagellates
SDC-2-3	22.5	119.4	330.8	252.0	0.0	229.6	140.9	17.4	0.8	39.8	1130.8	Anabaena flos-aquae
SDC-4-0	ND	0.0	0.0	441.0	0.0	434.4	776.0	228.8	0.0	136.0	2016.2	Unknown centric diatom

TABLE 2. continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
14 JULY 1976 cont.												
SDC-4-1	23.1	99.5	325.0	316.7	3.3	394.6	139.3	14.9	0.0	46.4	1339.7	Anabaena flos-aquae Gloeocystis sp.
SDC-4-3	21.9	0.0	34.8	459.3	0.0	643.3	235.4	1.7	0.0	51.4	1425.9	Flagellates Gloeocystis sp. Cyclotella stelligera
SDC-4-4	21.8	547.2	1203.8	316.7	0.0	485.8	210.6	8.3	0.0	63.0	2835.3	Anabaena flos-aquae
SDC-7-1	23.3	0.0	41.5	346.5	0.0	631.7	144.3	82.9	0.0	69.6	1316.5	Flagellates
SDC-7-3	22.3	0.0	4733.8	295.1	0.0	494.1	74.6	38.1	0.0	21.6	5657.3	Anabaena flos-aquae
SDC-7-5	21.9	165.8	3.3	174.9	0.0	620.9	176.6	2.5	0.0	34.0	1178.1	Flagellates
					14 OCTOBER 1976							
DC-0	ND	252.0	0.0	76.3	0.0	179.1	427.8	300.1	0.0	82.9	1318.2	Anacystis incerta Cyclotella comensis Flagellates
DC-1	17.3	630.1	29.8	1041.3	19.9	663.2	613.5	722.9	0.0	441.0	4161.7	Gloeocystis sp. Gomphosphaeria lacustris Flagellates
DC-2	14.9	1067.8	3.3	271.9	0.0	965.0	689.8	384.7	0.0	215.5	3598.0	Anacystis incerta
DC-3	15.0	545.5	31.5	252.0	8.3	1047.9	709.7	538.9	0.0	213.9	3347.6	Flagellates
DC-4	15.0	0.0	0.0	202.3	0.0	935.1	656.6	523.9	0.0	49.7	2367.7	Flagellates
DC-5	15.1	92.9	0.0	63.0	0.0	1018.1	822.4	354.8	0.0	53.1	2404.2	Flagellates
DC-6		Omitted, too rough to work										
NDC-.5-0	ND	245.4	5.0	180.7	1.7	205.6	339.9	288.5	0.0	159.2	1425.9	Gomphosphaeria lacustris Flagellates
NDC-.5-1	ND	228.8	29.8	397.9	33.2	517.3	759.4	543.8	0.0	271.9	2782.2	Flagellates
NDC-.5-2	15.8	691.4	31.5	467.6	49.7	691.4	618.5	563.7	0.0	456.0	3569.8	Gomphosphaeria lacustris Flagellates
NDC-1-0	ND	212.2	0.0	245.4	0.0	643.3	749.4	902.0	0.0	295.1	3047.5	Flagellates
NDC-1-1	15.6	0.0	119.4	623.4	73.0	663.2	858.9	510.7	0.0	361.5	3210.0	Flagellates Melosira granulata Gloeocystis sp.
NDC-1-2	15.1	46.4	0.0	136.0	26.5	328.3	537.2	482.5	0.0	86.2	1643.1	Flagellates
NDC-2-0	ND	0.0	16.6	338.2	9.9	285.2	427.8	606.9	0.0	364.8	2049.4	Fragilaria crotonensis Gloeocystis sp. Flagellates

TABLE 2. continued.

Station	Tem-perature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
14 OCTOBER 1976 cont.												
NDC-2-1	14.7	1482.3	0.0	839.0	43.1	848.9	1167.3	1644.8	6.6	587.0	6619.0	Anacystis incerta
NDC-2-3	15.0	265.3	0.0	69.6	13.3	772.7	573.7	530.6	0.0	175.8	2400.9	Flagellates
NDC-4-0	ND	13.3	21.6	169.1	14.9	394.6	402.9	593.6	0.0	136.0	1745.9	Flagellates Fragilaria crotonensis
NDC-4-1	14.5	494.1	13.3	245.4	44.8	611.8	482.5	563.7	0.0	298.5	2754.0	Flagellates Gomphosphaeria lacustris
NDC-4-3	15.1	598.6	66.3	101.1	0.0	638.4	238.8	180.7	0.0	58.0	1881.9	Flagellates Gomphosphaeria lacustris
NDC-7-1	14.9	0.0	0.0	119.4	29.8	547.2	815.8	789.2	0.0	222.2	2523.6	Flagellates Fragilaria crotonensis
NDC-7-3	15.2	248.7	5.0	233.8	5.0	1144.1	656.6	601.9	0.0	197.3	3092.3	Flagellates
NDC-7-5	15.1	182.4	0.0	111.1	19.9	585.3	691.4	371.4	0.0	11.6	1973.1	Cyclotella comensis Flagellates
SDC-.5-0	ND	6.6	9.9	285.2	6.6	507.4	451.0	510.7	3.3	255.3	2036.1	Flagellates Gloeocystis sp.
SDC-.5-1	15.1	0.0	136.0	759.4	53.1	858.9	1366.2	1883.6	0.0	560.4	5617.5	Fragilaria crotonensis Gloeocystis sp.
SDC-.5-2	15.0	13.3	0.0	84.6	24.9	203.9	759.4	1072.8	0.0	187.4	2346.2	Fragilaria crotonensis Cyclotella comensis
SDC-1-0	ND	349.9	59.7	136.0	6.6	338.2	358.1	228.8	0.0	180.7	1658.1	Anacystis incerta Flagellates
SDC-1-1	15.2	6.6	301.8	230.5	34.8	308.4	752.8	1018.1	0.0	114.4	2767.3	Fragilaria crotonensis Anabaena flos-aquae
SDC-1-2	15.1	136.0	0.0	119.4	8.3	397.9	291.8	502.4	0.0	124.4	1580.1	Flagellates Fragilaria crotonensis
SDC-2-0	ND	305.1	0.0	122.7	5.0	538.9	379.7	318.3	0.0	127.7	1797.3	Flagellates Anacystis incerta
SDC-2-1	15.2	497.4	0.0	388.0	16.6	613.5	673.2	613.5	0.0	119.4	2921.5	Anacystis incerta Gloeocystis planctonica
SDC-2-3	14.9	59.7	46.4	122.7	0.0	547.2	291.8	610.2	1.7	71.3	1750.9	Flagellates Fragilaria crotonensis
SDC-4-0	ND	21.6	0.0	131.0	13.3	258.7	487.5	406.2	0.0	41.5	1359.6	Cyclotella comensis
SDC-4-1	15.4	421.1	0.0	344.9	19.9	520.6	782.6	1104.3	0.0	212.2	3405.7	Fragilaria crotonensis Flagellates Gomphosphaeria lacustris

TABLE 2 . continued.

Station	Temperature	Coccoid blue-greens	Filamentous blue-greens	Coccoid greens	Filamentous greens	Flagellates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total algae	Dominant species
14 OCTOBER 1976 cont.												
SDC-4-3	ND	0.0	0.0	139.3	0.0	533.9	722.9	921.9	0.0	129.3	2447.3	Fragilaria crotonensis Cyclotella comensis Flagellates
SDC-7-1	14.8	696.4	0.0	165.8	3.3	732.9	464.3	955.0	0.0	195.7	3213.3	Gomphosphaeria lacustris Flagellates
SDC-7-3	15.0	391.3	0.0	167.5	0.0	771.0	358.1	1281.7	0.0	194.0	3163.6	Fragilaria crotonensis Flagellates Gomphosphaeria lacustris
SDC-7-5		Omitted, too rough to work.										

In Table 3 the dominant and codominant forms in the stations of each seasonal survey of 1970 through 1976 have been assembled and the numbers of their dominant or codominant occurrences given. This is done to assist the reader in sorting the probably important dominants and codominants from the rare ones which might be due to the chance occurrence of a single many-celled filament or colony.

Consideration of the dominant and codominant forms in the seasonal surveys of preoperational 1970 through 1974 and operational 1975 and 1976 brings to light the normal variation in seasonal dominants and codominants, rather than any effect of 1975 and 1976 operation of the plant.

The Aprils of all the years show the spring dominance of diatoms and flagellates which is expected.

In July of 1976 the forms having more than one occurrence as dominant or codominant (multidominants) were two diatoms, three blue-green algae, a green alga, and flagellates. Multidominants in July 1975 were two green algae, one blue-green, and flagellates. In the preoperational years, July 1974 had a diatom, a blue-green, and flagellates as forms with multiple dominance occurrences. Four diatoms and flagellates were the multidominants of July 1973. The multidominant forms of July 1972 were four diatoms, one green alga, one blue-green, and flagellates. In July 1971 the multidominant forms were three diatoms, two green algae, and two categories of flagellates. In the survey of July 1970 six diatoms, a green alga, and two flagellate categories had multiple dominance occurrences.

If there is anything of significance in this sequence of summer dominants it is probably the pronounced drop in the frequency of dominant diatoms between the preoperational years 1973 and 1974. The absence of dominant diatoms in July 1975 was due to the diatom population crashing a

TABLE 3. The dominant and codominant phytoplankters in the Cook Plant seasonal surveys of preoperational 1970 through 1974 and operational 1975 and 1976.

Survey	Species or group	Dominant or codominant occurrences
10 JULY 1970	Tabellaria fenestrata (diatom)	40
	Cyclotella sp. (diatom)	9
	Fragilaria crotonensis (diatom)	7
	Melosira sp. (diatom)	3
	Dinobryon divergens (flagellate)	2
	Flagellates	2
	Melosira granulata (diatom)	2
	Melosira granulata v. angustissima (diatom)	2
	Oocystis solitaria (green alga)	2
	Anabaena circinalis (blue-green alga)	1
	Chlamydomonas sp. (flagellate)	1
	Microcystis aeruginosa (blue-green alga)	1
	Melosira islandica (diatom)	1
	Melosira italica (diatom)	1
25 SEPT 1970	Chlamydomonas sp. (flagellate)	28
	Fragilaria crotonensis (diatom)	13
	Dinobryon divergens (flagellate)	10
	Oocystis sp. (green alga)	10
	Gloeocystis sp. (green alga)	7
	Melosira granulata (diatom)	7
	Chroococcus limneticus (blue-green alga)	4
	Ochromonas sp. (flagellate)	3
	Melosira granulata v. angustissima (diatom)	2
	Peridinium sp. (flagellate)	2
	Closteriopsis sp. ("other" alga)	1
	Cryptomonas sp. (flagellate)	1
	Cyclotella sp. (diatom)	1
	Tabellaria fenestrata (diatom)	1
	Tetraedron minimum ("other" alga)	1
12 NOV 1970	Ochromonas sp. (flagellate)	33
	Chlamydomonas sp. (flagellate)	19
	Cryptomonas sp. (flagellate)	3
	Fragilaria crotonensis (diatom)	3
	Crucigenia rectangularis ("other" alga)	1
	Cyclotella sp. (diatom)	1
15 APRIL 1971	Ochromonas sp. (flagellate)	24
	Melosira sp. (diatom)	15
	Chlamydomonas sp. (flagellate)	15
	Tabellaria fenestrata (diatom)	14
	Stephanodiscus sp. (diatom)	13
	Fragilaria crotonensis (diatom)	9
	Cyclotella sp. (diatom)	6
	Fragilaria sp. (diatom)	1

TABLE 3 continued

Survey	Species or group	Dominant or codominant occurrences
9 JULY 1971	Gloeocystis sp. (green alga)	47
	Oocystis sp. (green alga)	18
	Glenodinium sp. (flagellate)	12
	Dinobryon divergens (flagellate)	10
	Tabellaria fenestrata (diatom)	8
	Cyclotella sp. (diatom)	4
	Fragilaria crotonensis (diatom)	3
	Scenedesmus sp. ("other" alga)	1
	Crucigenia sp. ("other" alga)	1
	Fragilaria sp. (diatom)	1
	Westella linearis (green alga)	1
8 NOV 1971	Ochronomas sp. (flagellate)	20
	Tabellaria fenestrata (diatom)	17
	Fragilaria crotonensis (diatom)	7
	Gloeocystis sp. (green alga)	6
	Chlamydomonas sp. (flagellate)	4
	Cryptomonas sp. (flagellate)	3
	Aphanothece sp. (blue-green alga)	2
	Oocystis sp. (green alga)	1
	Fragilaria sp. (diatom)	1
12 APRIL 1972	Tabellaria fenestrata (diatom)	13
	Chlamydomonas sp. (flagellate)	8
	Cyclotella sp. (diatom)	7
	Stephanodiscus sp. (diatom)	6
	Gloeocystis sp. (green alga)	4
16 JULY 1972	Tabellaria fenestrata (diatom)	14
	Gloeocystis sp. (green alga)	5
	Chlamydomonas sp. (flagellate)	5
	Fragilaria intermedia (diatom)	4
	Fragilaria capucina (diatom)	4
	Frailaria crotonensis (diatom)	3
	Dinobryon sp. (flagellate)	3
	Flagellates	2
	Anabaena sp. (blue-green alga)	2
	Glenodinium sp. (flagellate)	1
	Ooocystis sp. (green alga)	1
15 OCT 1972	Melosira granulata (diatom)	26
	Chroococcus limneticus (blue-green alga)	4
	Flagellates	3
	Chroococcus sp. (blue-green alga)	2

TABLE 3 continued

Survey	Species or group	Dominant or codominant occurrences
25 APRIL 1973	Stephanodiscus minutus (diatom)	21
	Flagellates	12
	Cyclotella sp. (diatom)	5
	Stephanodiscus sp. (diatom)	3
	Fragilaria crotonensis (diatom)	1
	Gloeocystis sp. (green alga)	1
	Chlamydomonas sp. (flagellate)	1
	Melosira granulata (diatom)	1
	Tabellaria fenestrata v. intermedia (diatom)	1
19 JULY 1973	Stephanodiscus tenuis (diatom)	19
	Cyclotella stelligera (diatom)	10
	Melosira granulata v. angustissima (diatom)	4
	Chlamydonomas sp. (flagellate)	4
	Cyclotella sp. (diatom)	2
	Cyclotella atomus (diatom)	1
	Anacystis incerta (blue-green alga)	1
	Flagellates	1
	Gloeocystis sp. (green alga)	1
	Coccomyxa coccoides (green alga)	1
23 OCT 1973	Melosira granulata v. angustissima (diatom)	20
	Flagellates	9
	Chlamydomonas sp. (flagellate)	3
	Fragilaria crotonensis (diatom)	2
	Melosira granulata (diatom)	1
20 APRIL 1974	Fragilaria crotonensis (diatom)	20
	Flagellates	18
	Stephanodiscus tenuis (diatom)	11
	Synedra filiformis (diatom)	3
	Fragilaria intermedia v. fallax (diatom)	1
	Melosira granulata (diatom)	1
	Melosira italica (diatom)	1
	Stephanodiscus minutus (diatom)	1
11 JULY 1974	Fragilaria crotonensis (diatom)	27
	Flagellates	21
	Anacystis incerta (blue-green alga)	2
	Anabaena flos-aquae (blue-green alga)	1
	Cyclotella stelligera (diatom)	1
	Tabellaria fenestrata v. intermedia (diatom)	1
	Thalassiosira pseudonana (diatom)	1
	Stephanodiscus tenuis (diatom)	1

TABLE 3 continued

Survey	Species or group	Dominant or codominant occurrences
9 OCT 1974	Anacystis incerta (blue-green alga)	22
	Flagellates	21
	Gomphosphaeria lacustris (blue-green alga)	11
	Anacystis thermalis (blue-green alga)	3
	Fragilaria crotonensis (diatom)	2
	Asterionella formosa (diatom)	1
	Melosira granulata (diatom)	1
	Stephanodiscus minutus (diatom)	1
	Stephanodiscus tenuis (diatom)	1
17 APRIL 1975	Flagellates	24
	Stephanodiscus tenuis (diatom)	17
	Fragilaria crotonensis (diatom)	15
	Stephanodiscus minutus (diatom)	8
	Cyclotella stelligera (diatom)	7
	Tabellaria flocculosa (diatom)	3
	Tabellaria fenestrata v. intermedia (diatom)	1
	Melosira islandica (diatom)	1
	Anacystis incerta (blue-green alga)	1
	Fragilaria capucina (diatom)	1
	Fragilaria intermedia (diatom)	1
	Synedra filiformis (diatom)	1
17 JULY 1975	Gloeocystis sp. (green alga)	20
	Flagellates	15
	Anabaena flos-aquae (blue-green alga)	10
	Green coccoid unknown	4
	Fragilaria crotonensis (diatom)	1
	Cyclotella stelligera (diatom)	1
	Gloeocystis planctonica (green alga)	1
17 OCT 1975	Anacystis incerta (blue-green alga)	22
	Gomphosphaeria lacustris (blue-green alga)	15
	Fragilaria crotonensis (diatom)	9
	Flagellates	5
	Anabaena flos-aquae (blue-green alga)	1
	Gloeocystis sp. (green alga)	1
	Ochromonas sp. (flagellate)	1
	Synedra filiformis (diatom)	1

TABLE 3 continued

Survey	Species or group	Dominant or codominant occurrences
14 APRIL 1976	Flagellates	23
	Fragilaria crotonensis (diatom)	18
	Asterionella formosa (diatom)	16
	Stephanodiscus sp. (diatom)	8
	Anacystis incerta (blue-green alga)	4
	Stephanodiscus subtilis (diatom)	4
	Rhizosolenia gracilis (diatom)	2
	Stephanodiscus minutus (diatom)	2
	Gomphosphaeria lacustris (blue-green)	1
	Ulothrix sp. (green alga)	1
14 JULY 1976	Flagellates	24
	Gloeocystis sp. (green alga)	12
	Anabaena flos-aquae (blue-green)	9
	Gomphosphaeria lacustris (blue-green)	4
	Anacystis incerta (blue-green)	2
	Cyclotella stelligera (diatom)	2
	Fragilaria crotonensis (diatom)	2
	Gloeocystis planctonica (green alga)	1
	Oocystis sp. (green alga)	1
	Pediastrum duplex ("other" alga)	1
14 OCT 1976	Flagellates	28
	Fragilaria crotonensis (diatom)	11
	Gomphosphaeria lacustris (blue-green)	8
	Anacystis incerta (blue-green)	6
	Cyclotella comensis (diatom)	5
	Gloeocystis sp. (green alga)	5
	Anabaena flos-aquae (blue-green)	1
	Gloeocystis planctonica (green alga)	1
	Melosira granulata (diatom)	1

month earlier than usual; abundances of diatoms in July 1975 were comparable to those in the Augusts of 1974 and 1975, while abundances in July 1974 were comparable to those in the Junes of 1974 and 1975.

In the Novembers of 1970 and 1971 and the Octobers of the other years the multidominant forms were: 1970, a diatom and three forms of flagellates; 1971, two diatoms, a green alga, a blue-green, and three flagellates; 1972, two blue-greens, a diatom, and flagellates; 1973, flagellates and two diatoms; 1974, three blue-greens, a diatom, and flagellates; 1975, two blue-greens, a diatom, and flagellates; and 1976, two diatoms, two blue-greens, a green alga, and flagellates.

In this series, the perhaps significant things are that blue-greens were not dominant or codominant in the fall seasons of 1970 and 1973 while they were in the autumns of all the other years whether preoperational or operational; that the multidominants of operational 1975 were the same as in preoperational 1972; and that there were more multidominant blue-greens in preoperational 1974 than in operational 1975 and 1976.

There is no convincing evidence from the analysis of dominant species that operation of the Cook Plant has adversely affected the phytoplankton of its region.

Master Lists of Phytoplankters Collected

Table 4 presents the lists of phytoplankters taken in the seasonal surveys of 1976 and of September 1970. Ayers et al. (1971) list those taken in the July survey of 1970 and Ayers, Mozley, and Roth (1973) give those of November 1970. Ayers, Mozley, and Stewart (1974) give the species collected in the seasonal surveys of 1971. Ayers (1975) presents the lists for the surveys of 1972 and 1973. Ayers, Southwick, and Robinson (1977) give

TABLE 4 . Phytoplankton master lists.

25 SEPTEMBER 1970

Achnanthes exigua
Achnanthes sp.
Actinastrum hantzschii v. fluviatile
Amphora ovalis
Amphora ovalis v. libyca
Amphora ovalis v. pediculus
Amphora sp.
Anabaena circinalis
Anabaena sp.
Anacystis sp.
Ankistrodesmus braunii
Ankistrodesmus falcatus
Ankistrodesmus falcatus v. mirabilis
Ankistrodesmus gelifactum
Ankistrodesmus sp.
Aphanizomenon flos-aquae
Aphanocapsa sp.
Aphanothece sp.
Asterionella formosa
Blue-green unknown colony
Blue-green unknown filament
Caloneis sp.
Caloneis ventricosa
Centric diatom, unknown
Ceratium hirundinella
Chlamydomonas sp.
Chlorella sp.
Chroococcus limneticus
Chroococcus minutus
Chroococcus sp.
Chroococcus turgidus
Closteriopsis longissima
Closteriopsis sp.
Closterium sp.
Cocconeis pediculus
Cocconeis placentula
Cocconeis sp.
Coelastrum microporum
Coelastrum sp.
Coelastrum sphaericum
Coscinodiscus sp.
Cosmarium sp.
Crucigenia apiculata
Crucigenia quadrata
Crucigenia sp.
Cryptomonas sp.
Cyclotella comta
Cyclotella meneghiniana
Cyclotella pseudostelligera
Cyclotella sp.
Cymatopleura solea
Cymbella sp.
Dactylococcopsis sp.
Desmatractum sp.
Dictyosphaerium pulchellum
Dinobryon bavaricum
Dinobryon divergens
Dinoflagellate cysts
Epithemia sp.
Eunotia sp.
Flagellates
Fragilaria brevistriata
Fragilaria capucina
Fragilaria construens
Fragilaria crotonensis
Fragilaria intermedia
Franceia droescheri
Glenodinium sp.
Gloeocystis sp.
Golenkinia radiata
Gomphonema sp.
Gomphosphaeria lacustris
Gomphosphaeria sp.
Green cells, undetermined
Green colony, unknown
Green filament, unknown
Kirchneriella sp.
Lagerheimia citriformis
Lagerheimia longiseta
Lagerheimia sp.
Mallomonas sp.
Melosira granulata
Melosira granulata v. angustissima
Melosira islandica
Melosira sp.
Melosira varians
Microcystis aeruginosa
Mougeotia sp.
Navicula costulata
Navicula decussis
Navicula gastrum
Navicula radiosa
Navicula reinhardtii
Navicula scutelloides
Navicula sp.
Navicula tripunctata
Nitzschia acicularis
Nitzschia sp.
Nitzschia tryblionella
Nodularia sp.
Ochromonas sp.
Oedogonium sp.
Oestrupia zachariasi
Oocystis sp.
Oocystis submarina
Opephora martyi
Oscillatoria sp.
Pediastrum duplex
Pediastrum simplex
Pediastrum sp.
Peridinium sp.
Phormidium sp.
Plagiotropis lepidoptera
Quadrigula lacustris
Quadrigula sp.
Quadrigula chodatii
Scenedesmus abundans
Scenedesmus dimorphus
Scenedesmus opoliensis
Scenedesmus quadricauda
Scenedesmus sp.
Schroederia judayi
Schroederia sp.
Sphaerocystis sp.
Spores
Staurastrum sp.
Stephanodiscus alpinus
Stephanodiscus sp.
Stephanodiscus tenuis
Stephanodiscus transilvanicus
Surirella angusta
Surirella sp.
Synedra acus
Synedra ostenfeldii
Synedra sp.
Synedra ulna
Synedra ulna v. chaseana
Synedra ulna v. danica
Tabellaria fenestrata
Tetraedron caudatum
Tetraedron minimum
Tetraedron pentaedricum
Tetraedron sp.
Treubaria setigerum
Treubaria sp.
Westella sp.

TABLE 4 . continued.

Achnanthes clevei
Achnanthes clevei v. rostrata
Achnanthes detna
Achnanthes hauckiana v. rostrata
Achnanthes lanceolata
Achnanthes lanceolata v. dubia
Achnanthes lanceolata v. elliptica
Achnanthes linearis
Achnanthes sp.
Amphora ovalis
Amphora ovalis v. pediculus
Amphora sp.
Amphora #3
Anacystis incerta
Anacystis thermalis
Ankistrodesmus falcatus
Ankistrodesmus gelifactum
Ankistrodesmus setigerus
Ankistrodesmus sp.
Ankistrodesmus sp. #3
Asterionella formosa
Caloneis ventricosa v. minuta
Centric diatom, unknown
Chromulina parvula
Chromulina #1
Chromulina #2
Chrysophycean flagellate spp.
Cladophora sp.
Closteriopsis longissima
Cocconeis diminuta
Cocconeis placentula
Cocconeis placentula v. lineata
Cocconeis sp.
Cosmarium #1
Crucigenia quadrata
Crucigenia tetrapedia
Cryptomonas sp.
Cyclotella atomus
Cyclotella auxospore
Cyclotella comensis
Cyclotella comta
Cyclotella cryptica
Cyclotella kuetzingiana
Cyclotella meneghiniana
Cyclotella meneghiniana v. plana
Cyclotella michiganiana
Cyclotella michiganiana auxospore
Cyclotella ocellata
Cyclotella pseudostelligera
Cyclotella sp.
Cyclotella stelligera
Cyclotella temperei
Cymbella affinis
Cymbella latens
Cymbella microcephala
Cymbella minuta
Cymbella prostrata v. auerswaldii
Cymbella sp.
Diatoma tenue
Diatoma tenue v. elongatum
Diatoma vulgare
Dinobryon bavaricum
Dinobryon cysts
Dinobryon divergens
Dinobryon flagellates
Dinobryon sociale
Dinoflagellates
Dinobryon sp.
Diploneis oculata
Diploneis #2
Euglena sp.
Flagellates
Flagellate a
Fragilaria capucina
Fragilaria capucina v. lanceolata
Fragilaria construens
Fragilaria construens v. binodis
Fragilaria construens v. minuta
Fragilaria crotonensis
Fragilaria intermedia
Fragilaria intermedia v. fallax
Fragilaria pinnata
Fragilaria pinnata v. lancettula
Fragilaria sp.
Fragilaria vaucheriae
Gloeocystis planctonica
Gloeocystis sp.
Golenkinia radiata
Gomphonema angustatum
Gomphonema gracile
Gomphonema olivaceum
Gomphonema parvulum
Gomphonema sp.
Gomphosphaeria lacustris
Green cells, undetermined
Green coccoid, unknown
Green filament, unknown
Kirchneriella contorta
Kirchneriella lunaris
Kirchneriella sp.
Lagerheimia longiseta
Mallomonas sp.
Mallomonas sp. #3
Melosira distans v. alpigena
Melosira granulata
Melosira granulata v. angustissima
Melosira islandica
Melosira italica
Melosira sp.
Meridion circulare v. constrictum
Mougeotia sp.
Navicula anglica
Navicula capitata
Navicula capitata v. luneburgensis
Navicula cryptocephala
Navicula cryptocephala v. intermedia
Navicula cryptocephala v. veneta
Navicula decussis
Navicula diluviana

TABLE 4. continued.

14 APRIL 1976 cont.

Navicula gregaria
Navicula lanceolata
Navicula latens
Navicula menisculus
Navicula menisculus v. upsaliensis
Navicula nyassensis f. minor
Navicula platystoma v. pantocsekii
Navicula radiosa v. tenella
Navicula sp.
Navicula tripunctata
Nitzschia acicularis
Nitzschia acuta
Nitzschia amphibia
Nitzschia bacata
Nitzschia capitellata
Nitzschia closterium
Nitzschia confinis
Nitzschia dissipata
Nitzschia fonticola
Nitzschia fonticoloides
Nitzschia frustulum
Nitzschia gracilis
Nitzschia holsatica
Nitzschia kuetzingiana
Nitzschia linearis
Nitzschia palea
Nitzschia paleacea
Nitzschia recta
Nitzschia sigmoidea
Nitzschia sp.
Nitzschia sp. #1
Nitzschia sp. #2
Nitzschia sp. #10
Nitzschia #19
Nitzschia spiculoides
Nitzschia sublinearis
Ochromonas sp.
Oestrupia zachariasi
Opephora martyi
Oscillatoria limnetica
Oscillatoria retzii
Oscillatoria sp.
Peridinium sp.
Rhizosolenia eriensis
Rhizosolenia gracilis
Rhoicosphenia curvata
Scenedesmus acuminatus
Scenedesmus bicellularis
Scenedesmus bijuga
Scenedesmus opoliensis
Scenedesmus quadricauda
Scenedesmus quadricauda v. longispina
Scenedesmus sp.
Scenedesmus spinosus
Scenedesmus tetradesmiformis
Schizothrix calcicola
Sphaerocystis sp.
Stauroneis acutiuscula
Stephanodiscus alpinus
Stephanodiscus binderanus
Stephanodiscus hantzschii
Stephanodiscus minutus
Stephanodiscus minutus auxospore
Stephanodiscus niagarae
Stephanodiscus sp.
Stephanodiscus sp. #5
Stephanodiscus subtilis
Stephanodiscus tenuis
Stephanodiscus tenuis auxospore
Surirella angusta
Surirella ovata v. pinnata
Synedra acus
Synedra delicatissima v. angustissima
Synedra demerarae
Synedra filiformis
Synedra minuscula
Synedra ostenfeldii
Synedra parasitica
Synedra sp.
Synedra tenera
Synedra ulna
Synedra ulna v. chaseana
Tabellaria fenestrata
Tabellaria fenestrata v. intermedia
Tetraedron caudatum
Tetraedron minimum
Ulothrix sp.

TABLE 4 . continued.

14 JULY 1976

Achnanthes clevei
Achnanthes clevei v. rostrata
Achnanthes lanceolata
Achnanthes lanceolata v. dubia
Achnanthes minutissima
Achnanthes sp.
Actinastrum hantzschii
Acanthochloris sp.
Amphipleura pellucida
Amphora neglecta
Amphora ovalis
Amphora ovalis v. constricta
Amphora ovalis v. pediculus
Amphora sibirica
Amphora sp.
Amphora #3
Anabaena flos-aquae
Anacystis incerta
Anacystis thermalis
Ankistrodesmus falcatus
Ankistrodesmus gelifactum
Ankistrodesmus setigerus
Ankistrodesmus sp. #3
Asterionella formosa
Caloneis sp.
Centric diatom, unknown
Ceratium hirundinella
Characium sp.
Chromulina parvula
Chromulina #1
Chrysophycean flagellate spp.
Cladophora sp.
Closteriopsis longissima
Cocconeis auxospore
Cocconeis diminuta
Cocconeis pediculus
Cocconeis placentula v. euglypta
Coelastrum sp.
Cosmarium #1
Crucigenia quadrata
Crucigenia tetrapedia
Cryptomonad sp.
Cryptomonas sp.
Cyclotella auxospore
Cyclotella comensis
Cyclotella comta
Cyclotella cryptica
Cyclotella kuetzingiana
Cyclotella meneghiniana
Cyclotella meneghiniana v. plana
Cyclotella michiganiana
Cyclotella ocellata
Cyclotella operculata
Cyclotella sp.
Cyclotella stelligera
Cyclotella temperei
Cymatopleura solea
Cymbella auxospore
Cymbella minuta
Denticula tenuis v. crassula
Diatoma tenue v. elongatum
Diatoma vulgare
Dinobryon bavaricum
Dinobryon cysts
Dinobryon divergens
Dinobryon flagellates
Dinobryon sociale
Dinoflagellates
Diploneis oculata
Diploneis parma
Diploneis sp.
Diploneis #1
Flagellates
Flagellate a
Fragilaria capucina
Fragilaria capucina v. lanceolata
Fragilaria construens
Fragilaria construens v. venter
Fragilaria crotonensis
Fragilaria heideni
Fragilaria intermedia
Fragilaria intermedia v. fallax
Fragilaria pinnata
Fragilaria sp.
Fragilaria vaucheriae
Gloeocystis planctonica
Gloeocystis sp.
Golenkinia radiata
Golenkinia sp.
Gomphonema intricatum
Gomphonema olivaceum
Gomphonema sp.
Gomphosphaeria aponina
Gomphosphaeria lacustris
Green cells, undetermined
Green coccoid, unknown
Green colony, unknown
Kirchneriella contorta
Kirchneriella sp.
Lagerheimia sp.
Mallomonas pseudocoronata
Mallomonas sp.
Melosira distans v. alpigena
Melosira granulata
Melosira granulata v. angustissima
Melosira islandica
Melosira italica
Melosira sp.
Meridion circulare
Mougeotia sp.
Navicula bacillum
Navicula capitata
Navicula capitata v. luneburgensis
Navicula costulata
Navicula cryptocephala
Navicula cryptocephala v. intermedia
Navicula cryptocephala v. veneta
Navicula decussis
Navicula exigua v capitata

14 JULY 1976 cont.

Navicula gastrum
Navicula gastrum v. signata
Navicula gregaria
Navicula lanceolata
Navicula latens
Navicula menisculus v. upsaliensis
Navicula nyassensis f. minor
Navicula platystoma v. pantocsekii
Navicula pupula
Navicula pupula v. capitata
Navicula sp.
Navicula #78
Navicula stroemii
Navicula stroesei
Navicula tripunctata
Navicula tripunctata v. cuneata
Navicula viridula
Nitzschia acicularis
Nitzschia acuta
Nitzschia bacata
Nitzschia capitellata
Nitzschia confinis
Nitzschia dissipata
Nitzschia fonticola
Nitzschia fonticoloides
Nitzschia kuetzingiana
Nitzschia liebetruthii
Nitzschia palea
Nitzschia paleacea
Nitzschia sp.
Nitzschia sp. #1
Nitzschia sp. #2
Nitzschia spiculoides
Nitzschia sublinearis
Nitzschia tarda
Ochromonas sp.
Oocystis sp.
Opephora martyi
Oscillatoria retzii
Oscillatoria sp.
Pediastrum boryanum
Pediastrum duplex
Pediastrum duplex v. clathratum
Pediastrum duplex v reticulatum
Pediastrum simplex
Pediastrum simplex v. duodenarium
Pennate diatom (undetermined)
Peridinium sp.
Pinnularia sp.
Rhizosolenia eriensis
Rhizosolenia gracilis
Rhoicosphenia curvata
Scenedesmus acuminatus
Scenedesmus acutus
Scenedesmus arcuatus
Scenedesmus balatonicus
Scenedesmus bicellularis
Scenedesmus bijuga
Scenedesmus dimorphus
Scenedesmus quadricauda
Scenedesmus quadricauda v. longispina
Scenedesmus sp.
Scenedesmus spinosus
Scenedesmus tetradesmiformis
Schizothrix calcicola
Sphaerocystis sp.
Staurastrum paradoxicum
Staurastrum sp.
Stephanodiscus alpinus
Stephanodiscus hantzschii
Stephanodiscus minutus
Stephanodiscus niagarae
Stephanodiscus sp.
Stephanodiscus subtilis
Stephanodiscus tenuis
Surirella angusta
Surirella ovata
Surirella sp.
Synedra delicatissima v. angustissima
Synedra demerarae
Synedra filiformis
Synedra minuscula
Synedra ostenfeldii
Synedra parasitica
Synedra parasitica v. subconstricta
Synedra sp.
Synedra ulna
Synedra ulna v. chaseana
Synura sp.
Tabellaria fenestrata
Tabellaria fenestrata v. intermedia
Tetraedron caudatum
Tetraedron minimum
Tetraedron muticum
Tetraedron sp.
Tetrastrum staurogeniaeforme
Trachelomonas sp.
Treubaria setigerum

TABLE 4 . continued.

Achnanthes clevei v. rostrata
Achnanthes lanceolata
Achnanthes lanceolata v. dubia
Achnanthes lanceolata v. elliptica
Achnanthes lanceolata v. robusta
Achnanthes minutissima
Achnanthes pinnata
Achnanthes sp.
Achnanthes #1
Achnanthes #30
Actinastrum hantzschii v. fluviatile
Actinastrum hantzschii
Actinastrum sp.
Acanthochloris sp.
Amphipleura pellucida
Amphora auxospore
Amphora calumetica
Amphora neglecta
Amphora ovalis
Amphora ovalis v. constricta
Amphora ovalis v. gracilis
Amphora ovalis v. libyca
Amphora ovalis v. pediculus
Amphora rotunda
Amphora sibirica
Amphora sp.
Amphora #3
Amphora #16
Amphora veneta v. capitata
Anabaena flos-aquae
Anacystis incerta
Anacystis thermalis
Ankistrodesmus falcatus
Ankistrodesmus gelifactum
Ankistrodesmus sp.
Ankistrodesmus sp. #3
Asterionella formosa
Bicoeca paropsis
Blue-green unknown filament
Botryococcus braunii
Caloneis bacillum
Caloneis sp.
Caloneis ventricosa v. minuta
Centric diatom, unknown
Ceratium hirundinella
Chromulina parvula
Chromulina #1
Chrysophycean flagellate spp.
Closteriopsis longissima
Cocconeis diminuta
Cocconeis pediculus
Cocconeis placentula v. euglypta
Cocconeis placentula v. lineata
Coelastrum reticulatum
Coelastrum sp.
Cosmarium #1
Crucigenia quadrata
Crucigenia tetrapedia
Cryptomonas sp.
Cyclotella auxospore
Cyclotella comensis
Cyclotella comensis auxospore
Cyclotella comta
Cyclotella cryptica
Cyclotella kuetzingiana
Cyclotella kuetzingiana auxospore
Cyclotella meneghiniana
Cyclotella meneghiniana v. plana
Cyclotella michiganiana
Cyclotella michiganiana auxospore
Cyclotella ocellata
Cyclotella operculata
Cyclotella sp.
Cyclotella stelligera
Cyclotella temperei
Cymatopleura solea
Cymbella minuta
Cymbella prostrata
Cymbella sp.
Cymbella tumida
Cymbella ventricosa
Diatoma hiemale
Diatoma sp.
Diatoma tenue v. elongatum
Diatoma vulgare
Dictyosphaerium sp.
Dinobryon divergens
Dinobryon flagellates
Dinoflagellates
Diploneis boldtiana
Diploneis oculata
Diploneis parma
Flagellates
Flagellate a
Fragilaria brevistriata
Fragilaria capucina
Fragilaria capucina v. lanceolata
Fragilaria capucina v. mesolepta
Fragilaria construens
Fragilaria construens v. binodis
Fragilaria construens v. pumila
Fragilaria construens v. venter
Fragilaria crotonensis
Fragilaria intermedia
Fragilaria intermedia v. fallax
Fragilaria pinnata
Fragilaria pinnata v. lancettula
Fragilaria sp.
Fragilaria vaucheriae
Gloeocystis planctonica
Gloeocystis sp.
Golenkinia radiata
Golenkinia sp.
Gomphonema lanceolatum
Gomphonema olivaceum
Gomphonema parvulum v. micropus
Gomphonema sp.
Gomphosphaeria lacustris
Green cells, undetermined
Green coccoid, unknown
Green filament, unknown
Gyrosigma sp.
Kirchneriella contorta
Kirchneriella sp.
Lagerheimia longiseta
Lagerheimia subsalsa
Mallomonas pseudocoronata
Mallomonas sp.
Melosira distans v. alpigena
Melosira granulata
Melosira granulata v. angustissima
Melosira islandica
Melosira italica
Melosira sp.
Melosira varians
Micractinium sp.
Mougeotia sp.
Navicula anglica
Navicula anglica v. subsalsa
Navicula aurora
Navicula bacillum
Navicula capitata
Navicula capitata v. luneburgensis
Navicula circumtexta
Navicula clementis v. quadristigmata
Navicula costulata
Navicula cryptocephala
Navicula cryptocephala v. intermedia
Navicula cryptocephala v. veneta
Navicula cryptocephaloides
Navicula decussis
Navicula exiguaformis
Navicula gastrum
Navicula gastrum v. signata
Navicula gregaria
Navicula lanceolata
Navicula latens
Navicula menisculus
Navicula menisculus v. upsaliensis
Navicula micropupula
Navicula nyassensis f. minor
Navicula placentula
Navicula placentula v. rostrata
Navicula platystoma v. pantocsekii
Navicula pupula
Navicula pupula v. rostrata
Navicula radiosa v. tenella
Navicula sp.
Navicula #23
Navicula #78
Navicula tripunctata
Navicula tripunctata v. cuneata
Navicula viridula
Navicula viridula v. linearis
Navicula viridula v. rostelata
Neidium sp.
Nitzschia acicularis
Nitzschia acuta
Nitzschia angustata v. acuta

TABLE 4. continued.

14 OCTOBER 1976 cont.

Nitzschia bacata
Nitzschia capitellata
Nitzschia confinis
Nitzschia dissipata
Nitzschia fonticola
Nitzschia frustulum
Nitzschia kuetzingiana
Nitzschia palea
Nitzschia paleacea
Nitzschia recta
Nitzschia sp.
Nitzschia sp. #1
Nitzschia sp. #2
Nitzschia #6
Nitzschia sp. #18
Nitzschia spiculoides
Nitzschia sublinearis
Nitzschia tarda
Ochromonas sp.
Oocystis sp.
Opephora martyi
Oscillatoria limnetica
Oscillatoria sp.
Pediastrum boryanum
Pediastrum duplex
Pediastrum duplex v. clathratum
Pediastrum duplex v. gracillimum
Pediastrum duplex v reticulatum
Pediastrum simplex
Pediastrum simplex v. duodenarium
Pediastrum sp.
Pediastrum tetras v. tetraodon
Pennate diatom (undetermined)
Peridinium sp.
Pinnularia sp.
Rhizosolenia eriensis
Rhizosolenia gracilis
Rhoicosphenia curvata
Scenedesmus acuminatus
Scenedesmus acuminatus v. elongatus
Scenedesmus acutus
Scenedesmus balatonicus
Scenedesmus bicellularis
Scenedesmus bijuga
Scenedesmus caudato-aculeolatus
Scenedesmus denticulatus
Scenedesmus denticulatus v. linearis
Scenedesmus dimorphus
Scenedesmus quadricauda
Scenedesmus quadricauda v. longispina
Scenedesmus quadricauda v. longispina f. assymetricus
Scenedesmus sp.
Scenedesmus spinosus
Scenedesmus tetradesmiformis
Scenedesmus tetradesmiformis v. tetrades
Schizothrix calcicola
Schroederia sp.
Sphaerocystis sp.
Staurastrum paradoxicum
Staurastrum sp.
Stauroneis smithii
Stephanodiscus alpinus
Stephanodiscus auxospore
Stephanodiscus binderanus
Stephanodiscus hantzschii
Stephanodiscus minutus
Stephanodiscus niagarae
Stephanodiscus sp.
Stephanodiscus #10
Stephanodiscus subtilis
Stephanodiscus tenuis
Surirella angusta
Surirella sp.
Synedra acus
Synedra delicatissima v. angustissima
Synedra demerarae
Synedra filiformis
Synedra minuscula
Synedra sp.
Synedra ulna
Synedra ulna v. chaseana
Synura sp.
Synura uvella
Tabellaria fenestrata
Tabellaria fenestrata v. intermedia
Tetraedron caudatum
Tetraedron minimum
Tetraedron regulare
Tetraedron sp.
Tetrastrum staurogeniaeforme
Treubaria setigerum

the master lists for the surveys of 1974 and 1975.

Over time, the master lists provide a means by which to watch for changes in the phytoplankton community. The master lists of 1972 (when the settle- freeze method was adopted) through 1976 have been put to this use in the section which follows.

New Forms in the Phytoplankton Community since 1972

Ayers, Southwick, and Robinson (1977, pp. 17-20) present the rationale for this section. Essentially, newly identified species of previously identified genera are not considered "new" in the sense of this section; "new" forms are defined as forms which by their unfamiliarity (not seen before) have forced themselves into the analysts' attentions.

The list of "new" forms which have entered the Cook Plant phytoplankton community in the years since 1972 is (with X indicating presence):

Form	Kind	1972	1973	1974	1975	1976
Agmenellum sp.	c. b-g				X	
Acanthochloris sp.	"other"					X
Bicoecia paropsis	flagel				X	X
Bitrichia sp.	"other"				X	
Chlorella spp.	green				X	
Chromulina spp.	flagel				X	X
Denticula sp.	diatom				X	X
Eunotia spp.	diatom		X	X	X	
Gymnodinium sp.	flagel		X	X	X	
Meridion circulare	diatom		X	X	X	X
Pinnularia sp.	diatom		X	X	X	X
Schizothrix calcicola	f. b-g					X
Stauroneis spp.	diatom			X	X	X
Stichococcus scopulinus	f. grn				X	

Form	Kind	1972	1973	1974	1975	1976
Thalassiosira pseudonana	diatom			X	X	
Trachelomonas sp.	flagel				X	X
Tropidoneis sp.	diatom				X	
Ulothrix sp.	f. grn		X	X	X	X

It is to be noted here that the "new" forms in this list were not necessarily present in all the survey months of the years when they are listed as being present. Further, some which had been present earlier were not found in 1976; this is taken to indicate that they are still rare, with some element of chance being involved in their capture.

The majority of the new forms appear to be organisms with preferences or requirements for water of increased conductivity or elevated organic content. The appearance of new forms with such preferences or requirements is consistent with the increasing eutrophication of the nearshore waters of Lake Michigan which has been well documented by Tarapchak and Stoermer (1976) and which was under way for decades before Cook Plant was built. There is no evidence that the operation of Cook Plant has had any effect on the trend of eutrophication in the lake.

The Appearance and Increase of Cyclotella comensis

Cyclotella comensis is a denizen of alpine lakes and is known to have produced fall blooms there. Dr. E. F. Stoermer (personal communication) has taken it in low numbers in Lake Superior; he has also taken it in most months of the year in Lake Huron where in late summer and early fall it has produced heavy blooms in the mouth of Saginaw Bay and in the southern part of the lake. Stoermer has taken this species in northern and central Lake Michigan in all seasons. At his request we examined our master lists of phytoplankton

collected in the Cook Plant region to see if it was present and, if so, to determine when it was first taken in our collections. It became a dominant or codominant species in October of 1976 and had been taken in each major survey back through October 1975. Prior to that survey it had never been taken in Cook Plant surveys.

Present information about the appearance and increase of C. comensis can be summarized as follows:

	July '75	October '75	April '76	July '76	October '76
Number of occurrences	0	24	13	6	35
% of samples containing it	0	66	33	15	100
Range of % of sample populations	0	0-1.77	0-0.59	0-0.24	0.60-25.80
Mean % of sample populations	0	0.58	0.06	0.02	6.52
No. of dominant or co-dominant occurrences	0	0	0	0	5

Aside from the fact that it blooms in late summer and early fall, nothing is known at present of the preferenda or requirements of this diatom. Its presence in Lakes Superior and Huron and in other parts of Lake Michigan argue that its appearance and increase in the Cook Plant vicinity are due to something in the lake itself, rather than to the operation of the Cook Plant.

Major Algal Group Percentages at Plant and Reference Stations, 1970-1976

Figure 4 is a visual presentation of the year to year variations in the primary algal components of the phytoplankton of the Cook Plant region. The figure compares mean abundances of five major groups of phytoplankton at four inshore stations in front of the plant with those at two inshore reference

stations located seven miles north and seven miles south of the plant, the strategy being to obtain from the preoperational years an idea of the degree of natural similarity or dissimilarity in population composition existing at stations near the plant and away from it and to look in the operational years for dissimilarities that might be attributable to effects of plant operation.

The plant stations (stations DC-0, DC-1, NDC-.5-1, and SDC-.5-1) were chosen as being shallow water stations close to the plant's cooling water discharge where discharged waste heat could be expected to be present more often than at others. The reference stations, NDC-7-1 and SDC-7-1, are also in shallow water but seven miles from the plant where waste heat should not be expected.

In the computations for the figure, abundances in cells/ml of each of ten categories of algae (coccoid blue-greens, filamentous blue-greens, coccoid greens, filamentous greens, flagellates, centric diatoms, pennate diatoms, desmids, other algae, and total algae) in the two station groups have been averaged and the mean abundances expressed as percentages of the mean total algae. Coccoid and filamentous blue-greens are combined, as are coccoid and filamentous greens, centric and pennate diatoms, and desmids and other algae. The percentages are progressively summed in plotting the graphs.

Extremely cold weather in November 1971 caused cancellation of the extreme north and south station lines in which the reference stations were contained. Preservation failure caused a lost sample in April 1972. Broken samples caused missed data in April 1973 and July 1975. Phytoplankton samples at the reference stations were accidently omitted in August of 1976.

Although the graphs of population composition differ substantially from year to year, the graphs for the plant stations and reference stations in any one preoperational year show many similarities in the temporal changes of

population components, especially in the cases of the components making up the larger percentages of the population. See, as examples, the decreases in diatoms and increases in flagellates between September and November of 1970; the peak abundances of desmids and other algae in July 1971 and the large proportions of green algae in July and September of that year; the absences of summer minima of diatoms in the Julys of 1970, 1972, and 1973; large proportions of flagellates in April and July of 1972 which diminished into October of that year; very low proportions of blue-green algae throughout 1973 and decreasing proportions of diatoms from July to October of 1973; peak abundances of desmids and other algae and pronounced summer minima of diatoms in August 1974; and peak abundances of blue-greens in September 1974. Greens and blue-greens taken together showed similar variations in the two station groups in 1970 and 1972.

On the whole, temporal changes in the component parts of the phytoplankton at the plant stations and the references stations in each of the preoperational years were qualitatively similar. Only in the flagellates and green algae in 1973 were the changes directionally different in the two station groups.

Introduction of the reference stations into the monthly short surveys in 1974 allowed a more detailed presentation of the variations in the population components. It showed an earlier spring increase in blue-greens at the reference stations than at the plant stations and, in this preoperational year, higher and more sustained proportions of these algae in both plant and reference stations than had been observed previously.

Cook Plant began operations in the very early months of 1975 and reached 81% of full power on 19 April 1975. At the plant stations blue-greens had begun to increase by June and peaked in September at very nearly the same

level as in 1974; at the reference stations the blue-greens had attained a substantial level as early as April and peaked in August a month earlier than in 1974 though at almost the same level as in 1974.

At the plant stations in 1975 the diatom minimum lasted from July through September and represented diatom proportions no smaller than those of August-September 1974, July-September 1971, or November 1970 of the preoperational years. In the 1975 reference stations the diatom minimum was in July-August and represented diatom proportions smaller than in the plant stations but no smaller than had occurred in the reference stations in September of preoperational 1971. The onset of the diatom minimum a month earlier in 1975 than in 1974 in both the plant and the reference stations is attributed to the warmer summer of 1975, rather than to an effect of plant operation.

In both the plant and the reference stations in 1975 flagellates represented a greater proportion of the population than in 1974, though not so great a one as was observed in September-November 1970 and about the same as in July 1972. As a result of the warmer summer, flagellates in both station groups reached their greater abundances a month earlier than in 1974.

Green algae in both plant and reference stations began to reach their greater abundances in July 1975, again an effect of the warmer summer. In neither station group did these algae reach the massive proportions of the populations that were observed in 1971.

In 1976 the partitionings of the five components of the phytoplankton populations were, in both the plant stations and the reference stations, different from those observed in previous years. Blue-green and green algae did not exhibit the pronounced maxima or minima of other years. Flagellates

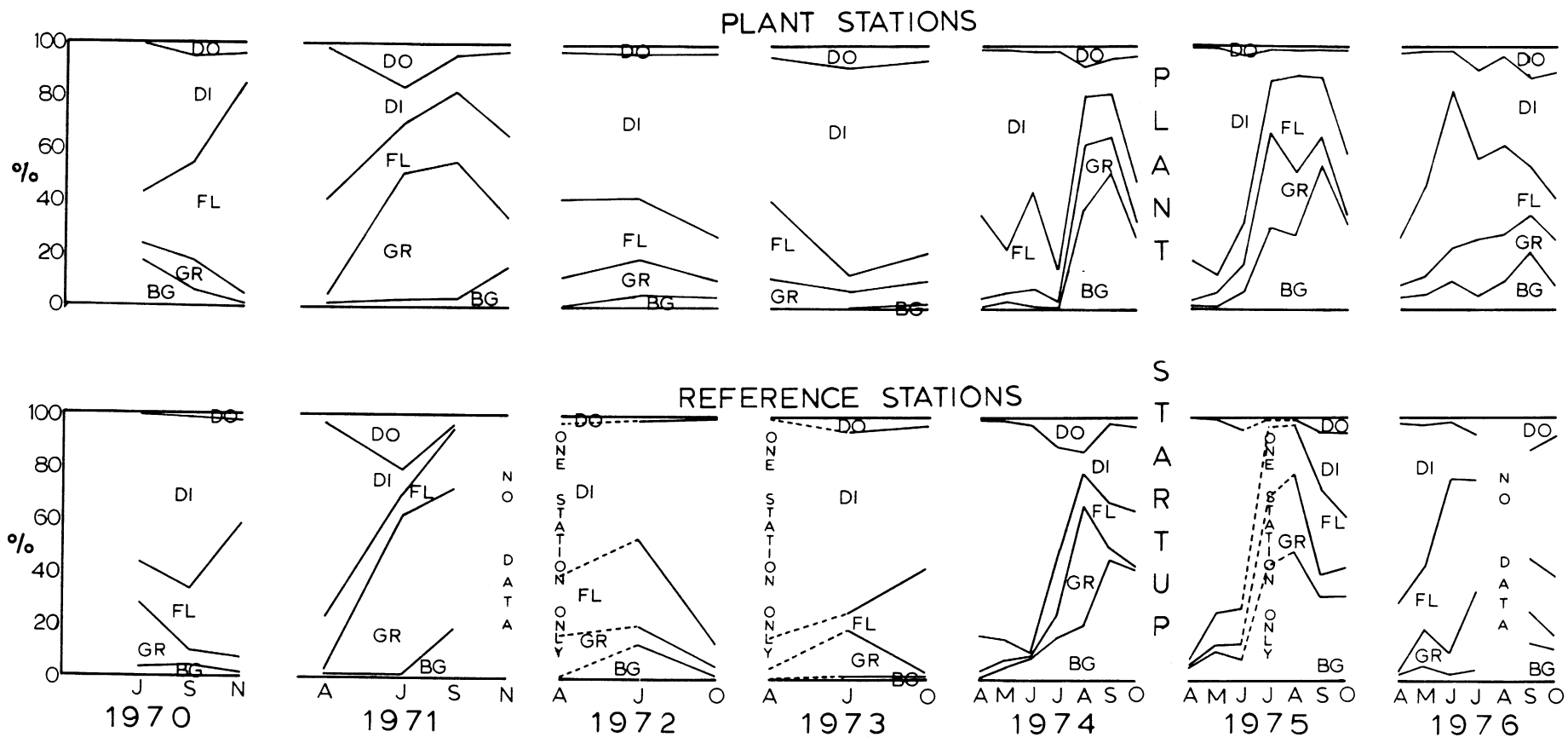

FIG. 4. Major group compositions of the Cook Plant region phytoplankton from July 1970 through October 1976. The upper graphs are based on mean abundances at four stations near the plant: NDC-.5-1, SDC-.5-1, DC-0, and DC-1. The lower graphs are based on mean abundances at the reference stations NDC-7-1 and SDC-7-1 each seven miles from the plant. Blue-greens are abbreviated as BG, greens as GR, flagellates as FL, diatoms as DI, and desmids and other algae as DO.

in both station groups were generally a higher and more sustained proportion of the population than in other years. Desmids and other algae peaked in September, which had not been seen before. The summer diatom minimum occurred in June in the plant stations and in June and July in the reference stations; in both sets of stations the minima were less severe than in 1974 or 1975. In general, it appears that in 1976 flagellates and desmids and other algae increased at the expense of diatoms, greens, and blue-green algae in both the plant and the reference stations.

In the operational years 1975 and 1976 the temporal changes in the component parts of the phytoplankton at the plant and reference stations continued to be qualitatively similar. No essential dissimilarities which can be attributed to plant operation have been found in this analysis.

Inner-Outer Graphical Comparisons: Numbers of Forms

In this section the term "forms" includes organisms identified to genus and species (e.g. Asterionella formosa), organisms identified only to genus (e.g. Melosira sp. or spp.), composite groups of unidentified organisms (e.g. Flagellates), and the unfamiliar new forms which entered the phytoplankton community after 1972.

Data on the numbers of phytoplanktonic forms in collections from the Cook Plant region in the years 1971 through 1975 have been presented and discussed by Ayers, Southwick, and Robinson (1977) and for the most part the tabulated data in that report are not repeated here. This section concerns itself with extending the previous tabulations, figures, and discussions to include the major surveys carried out in September 1970 and in 1976. Table 5 presents these data.

As was done in the report cited, the data on numbers of forms present in

TABLE 5. Numbers of phytoplankton forms, numbers of individuals per milliliter, and Wilhm and Dorris diversity indices.

Station	Numbers of forms	Individuals/ml	Diversity indices	Station	Numbers of forms	Individuals/ml	Diversity indices
			25 SEPTEMBER 1970				
DC-2	22	155	2.53	SDC-.25-1	29	134	3.62
DC-3	24	350	3.42	SDC-.5-0	43	300	4.14
DC-4	26	185	3.80	SDC-.5-1	29	273	3.61
DC-5	14	193	3.01	SDC-.5-2	25	182	3.69
DC-6	17	154	3.58	SDC-.5-3	22	138	3.52
NDC-.25-1	16	195	3.46	SDC-1-0	32	886	3.52
NDC-.5-0	30	527	3.80	SDC-1-1	24	272	4.02
NDC-.5-1	25	281	3.49	SDC-1-2	28	247	3.54
NDC-.5-2	28	190	3.18	SDC-1-3	28	190	3.38
NDC-.5-3	25	183	3.68	SDC-2-0	30	132	4.04
NDC-1-0	33	225	4.25	SDC-2-1	36	376	3.71
NDC-1-1	27	581	2.08	SDC-2-2	33	211	3.62
NDC-1-2	24	201	3.30	SDC-2-3	21	256	3.39
NDC-1-3	14	97	2.90	SDC-2-4	23	151	3.36
NDC-2-0	31	510	3.51	SDC-4-0	37	341	3.90
NDC-2-1	30	216	4.04	SDC-4-1	26	272	2.82
NDC-2-2	45	693	3.68	SDC-4-2	32	268	3.54
NDC-2-3	27	240	3.03	SDC-4-3	24	155	3.54
NDC-2-4	23	311	3.50	SDC-4-4	28	249	3.35
NDC-4-0	42	1106	3.41	SDC-7-1	28	139	3.89
NDC-4-1	33	474	3.87	SDC-7-2	27	240	3.52
NDC-4-2	31	492	3.76	SDC-7-3	25	212	3.10
NDC-4-3	34	451	3.44	SDC-7-4	20	149	3.57
NDC-4-4	27	323	3.04	SDC-7-5	20	321	3.30
NDC-7-1	29	844	3.12				
NDC-7-2	32	388	3.49	Overall ave. diversity index			3.49
NDC-7-3	28	485	3.35				
NDC-7-4	34	400	3.42				
NDC-7-5	29	277	3.96				

TABLE 5 continued.

Station	Numbers of forms	Individuals/ml	Diversity indices	Station	Numbers of forms	Individuals/ml	Diversity indices
			14 APRIL 1976				
DC-0	61	8270	4.16	NDC-7-3	62	5523	4.28
DC-1	62	5694	4.21	NDC-7-5	56	1520	4.41
DC-2	52	3585	4.20	SDC-.5-0	67	5770	4.50
DC-3	56	3303	4.59	SDC-.5-1	59	6934	4.34
DC-4	50	1789	4.22	SDC-.5-2	58	4895	4.42
DC-5	41	1904	3.89	SDC-1-0	76	11510	4.86
DC-6	33	920	2.84	SDC-1-1	54	3439	4.67
NDC-.5-0	75	7730	4.45	SDC-1-2	53	3638	4.23
NDC-.5-1	42	3412	3.81	SDC-2-0	57	5137	4.33
NDC-.5-2	54	7322	4.09	SDC-2-1	68	9902	4.63
NDC-1-0	55	6155	3.90	SDC-2-3	49	4221	4.22
NDC-1-1	52	4891	4.39	SDC-4-0	47	3505	4.12
NDC-1-2	47	2288	4.34	SDC-4-3	43	1910	3.87
NDC-2-0	65	7103	4.62	SDC-4-4	35	1394	2.93
NDC-2-1	55	5329	4.22	SDC-7-1	52	3482	4.15
NDC-2-3	59	5753	4.22	SDC-7-3	60	6115	4.54
NDC-4-0	50	3976	4.28	SDC-7-5	45	1026	4.26
NDC-4-1	55	5382	4.32				
NDC-4-3	48	2381	3.90	Overall ave. diversity index			4.16
NDC-4-4	32	1464	2.66				
NDC-7-1	64	7120	4.15				

TABLE 5 continued.

Station	Numbers of forms	Individuals/ml	Diversity indices	Station	Numbers of forms	Individuals/ml	Diversity indices
			14 JULY 1976				
DC-0	73	2039	4.74	NDC-7-3	37	1322	3.77
DC-1	49	1399	4.19	NDC-7-5	31	869	3.06
DC-2	52	1860	3.70	SDC-.5-0	74	3853	4.62
DC-3	30	1482	2.93	SDC-.5-1	55	1976	4.33
DC-4	25	1469	3.23	SDC-.5-2	54	1514	3.97
DC-5	39	884	3.62	SDC-1-0	62	3038	4.47
DC-6	23	1645	3.47	SDC-1-1	64	2547	4.20
NDC-.5-0	74	7713	4.77	SDC-1-2	38	1535	3.57
NDC-.5-1	63	1779	4.40	SDC-2-0	82	5757	4.50
NDC-.5-2	64	1362	4.10	SDC-2-1	39	1177	3.81
NDC-1-0	56	4032	4.64	SDC-2-3	43	1131	3.53
NDC-1-1	96	2760	4.34	SDC-4-0	53	2016	4.11
NDC-1-2	47	1355	3.77	SDC-4-1	37	1340	3.60
NDC-2-0	78	3101	4.91	SDC-4-3	20	1426	3.05
NDC-2-1	62	1520	4.32	SDC-4-4	28	2835	2.91
NDC-2-3	32	569	3.78	SDC-7-1	39	1317	3.73
NDC-4-0	86	5554	4.91	SDC-7-3	25	5657	1.19
NDC-4-1	50	1554	3.95	SDC-7-5	31	1178	3.46
NDC-4-3	28	733	3.34				
NDC-4-4	36	1092	3.45	Overal ave. diversity index			3.86
NDC-7-1	50	1514	4.03				

TABLE 5 continued.

Station	Numbers of forms	Individuals/ml	Diversity indices	Station	Numbers of forms	Individuals/ml	Diversity indices
			13 OCTOBER 1976				
DC-0	57	1318	4.47	NDC-7-5	46	1973	3.54
DC-1	74	4162	4.46	SDC-.5-0	54	2036	4.51
DC-2	70	3598	4.17	SDC-.5-1	97	5617	5.11
DC-3	88	3348	4.62	SDC-.5-2	84	2346	4.51
DC-4	42	2368	3.82	SDC-1-0	76	1658	4.86
DC-5	34	2404	3.59	SDC-1-1	92	2767	4.93
NDC-.5-0	68	1426	4.73	SDC-1-2	64	1580	4.28
NDC-.5-1	67	2782	4.89	SDC-2-0	69	1797	4.38
NDC-.5-2	88	3570	4.89	SDC-2-1	71	2922	4.63
NDC-1-0	70	3048	4.87	SDC-2-3	62	1751	4.49
NDC-1-1	80	3210	4.92	SDC-4-0	59	1360	4.37
NDC-1-2	67	1643	4.83	SDC-4-1	93	3406	5.10
NDC-2-0	59	2049	4.59	SDC-4-3	54	2447	4.25
NDC-2-1	100	6619	4.76	SDC-7-1	70	3213	4.33
NDC-2-3	50	2401	4.38	SDC-7-3	69	3164	4.04
NDC-4-0	82	1746	4.91				
NDC-4-1	87	2754	4.80	Overall ave. diversity index			4.51
NDC-4-3	57	1882	3.85				
NDC-7-1	68	2524	4.82				
NDC-7-3	73	3092	4.20				

1970 and 1976 are stratified by three depth zones and by inner and outer station groups. The depth zones and station groups used are:

Depth Zone	Depth Range	Inner station group	Outer station group
0	0 to 8 m	DC-0	NDC-2-0
		DC-1	NDC-2-1
		NDC-.5-0	NDC-4-0
		NDC-.5-1	NDC-4-1
		NDC-.5-2	NDC-7-1
		NDC-1-0	SDC-2-0
		NDC-1-1	SDC-2-1
		SDC-.5-0	SDC-4-0
		SDC-.5-1	SDC-4-1
		SDC-.5-2	SDC-7-1
		SDC-1-0	
		SDC-1-1	
1	8 to 16 m	DC-2	NDC-2-3
		NDC-1-2	NDC-7-3
		SDC-1-2	SDC-2-3
			SDC-7-3
2	16 to 24 m	DC-3	NDC-4-3
		DC-4	NDC-7-5
			SDC-4-3
			SDC-7-5

The method consists of dividing the survey stations into groups according to depth zones and proximity to the plant. Stations along, or less than 2 miles north or south of, a central transect extending 7 miles from the Cook Plant perpendicular to shore are defined as "inner" (treatment) stations which might be affected by plant operation. Stations 2 miles or more north or south of the plant are defined as north and south reference stations or, lumped together, as "outer" (control) stations. Zero-to-8 m depths are designated "Zone 0"; 8 to 16 m as "Zone 1"; and 16 to 24 m as "Zone 2". For each depth zone there are inner and outer station groups.

Mean numbers of forms and the associated standard errors have been computed and are presented in Table 6.

TABLE 6. Means, standard errors, and numbers of observations of in-lake phytoplankton forms by seasons, depth zones, and inner or outer station groups in Cook Plank major surveys in preoperational 1970 and operational 1976 (the intervening years are reported by Ayers, Southwick, and Robinson 1977).

1970

	10 July	25 September	12 November
Zone 0, Inner			
Mean	31.91	29.60	21.80
S. E.	2.44	1.76	0.92
N	11	10	10
Outer			
Mean	35.00	32.20	23.80
S. E.	1.70	1.53	2.02
N	9	10	10
Zone 1, Inner			
Mean	21.00	24.67	23.67
S. E.	2.31	1.77	2.67
N	3	3	3
Outer			
Mean	29.25	25.25	21.00
S. E.	5.72	1.55	1.08
N	4	4	4
Zone 2, Inner			
Mean	22.00	25.00	21.50
S. E.	7.00	1.00	0.50
N	2	2	2
Outer			
Mean	20.50	26.75	19.25
S. E.	1.33	3.04	2.50
N	4	4	4

1976

	14 April	14 July	13 October
Zone 0, Inner			
Mean	59.58	65.33	75.58
S. E.	2.78	3.65	3.84
N	12	12	12
Outer			
Mean	56.90	57.60	75.80
S. E.	2.15	5.86	4.44
N	10	10	10
Zone 1, Inner			
Mean	50.67	45.67	67.00
S. E.	1.85	4.09	1.73
N	3	3	3
Outer			
Mean	57.50	34.25	63.50
S. E.	2.90	3.82	3.19
N	4	4	4

TABLE 6 continued.

1976	14 April	14 July	13 October
Zone 2, Inner			
Mean	53.00	27.50	65.00
S. E.	3.00	2.50	23.00
N	2	2	2
Outer			
Mean	48.00	27.50	56.50
S. E.	2.86	2.60	4.77
N	4	4	4

Time plots of mean numbers of forms by seasons, by depth zones, and by inner and outer station groups are presented in Figure 5. Also included in the figure are, for each year, three-seasonal averages of mean numbers of forms at inner and outer station groups; these are plotted in July of each year and are connected from year to year by a solid line for inner stations and a dashed line for outer stations. Three-seasonal averages for 1970 are not given because the surveys of that year covered only summer and fall. The three-seasonal averages of mean numbers of forms are:

	1971	1972	1973	1974	1975	1976
Zone 0						
Inner	28.0	35.0	47.5	51.5	58.3	66.8
Outer	28.6	37.3	43.9	53.5	59.4	63.4
Zone 1						
Inner	27.5	38.2	49.8	49.0	48.9	54.4
Outer	28.6	40.0	44.4	48.5	46.4	51.7
Zone 2						
Inner	31.0	36.0	39.5	45.1	59.0	48.5
Outer	28.9	29.9	36.5	41.0	40.5	44.0

The annual curves of mean numbers of forms in Figure 5 show substantial degrees of parallelism, indicating that the numbers of forms at inner and outer station groups have in general varied in the same directions in the seasons of each year. The only pronounced failure of parallelism occurred in zone 1 in July of 1973.

The positions of the annual curves on the graphs and the three-seasonal averages of mean numbers of forms both exhibit steadily rising tendencies in zone 0. In zone 1 there was a tendency to plateau in the years 1973 through 1975, with increase in 1976. Zone 2, well offshore from the plant, showed a plateau of three-seasonal averages in 1974 and 1975 in the outer stations while the inner stations had a high average in 1975 followed by a decrease in 1976.

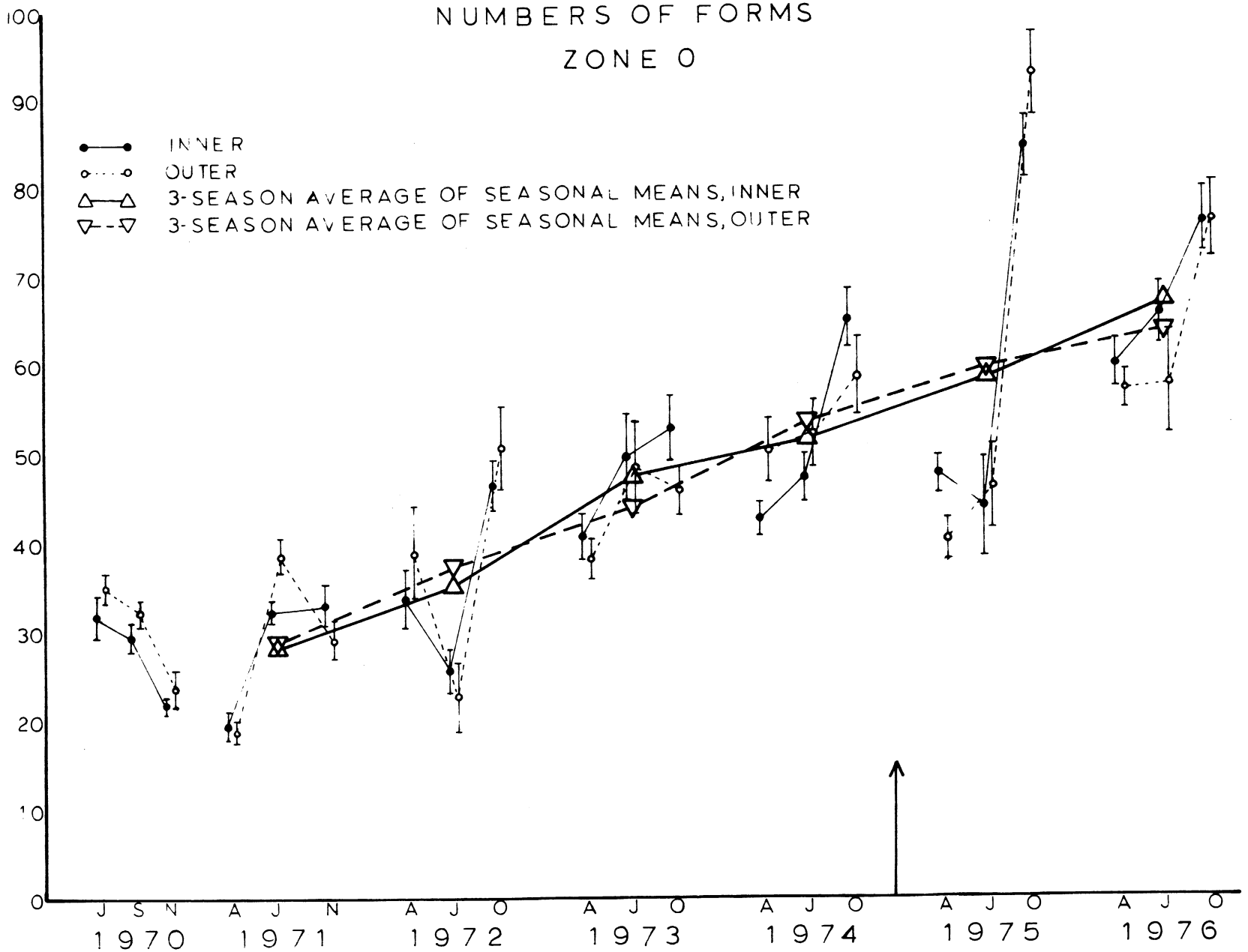

FIG. 5a. Mean numbers of phytoplanktonic forms in zone 0 by spring, summer, and fall seasons and by inner and outer station groups in 1970 - 1976. Averages of three-season mean numbers of forms are plotted in July of each year and connected from year to year. The vertical bars show the standard error. See Table 3 for sample sizes.

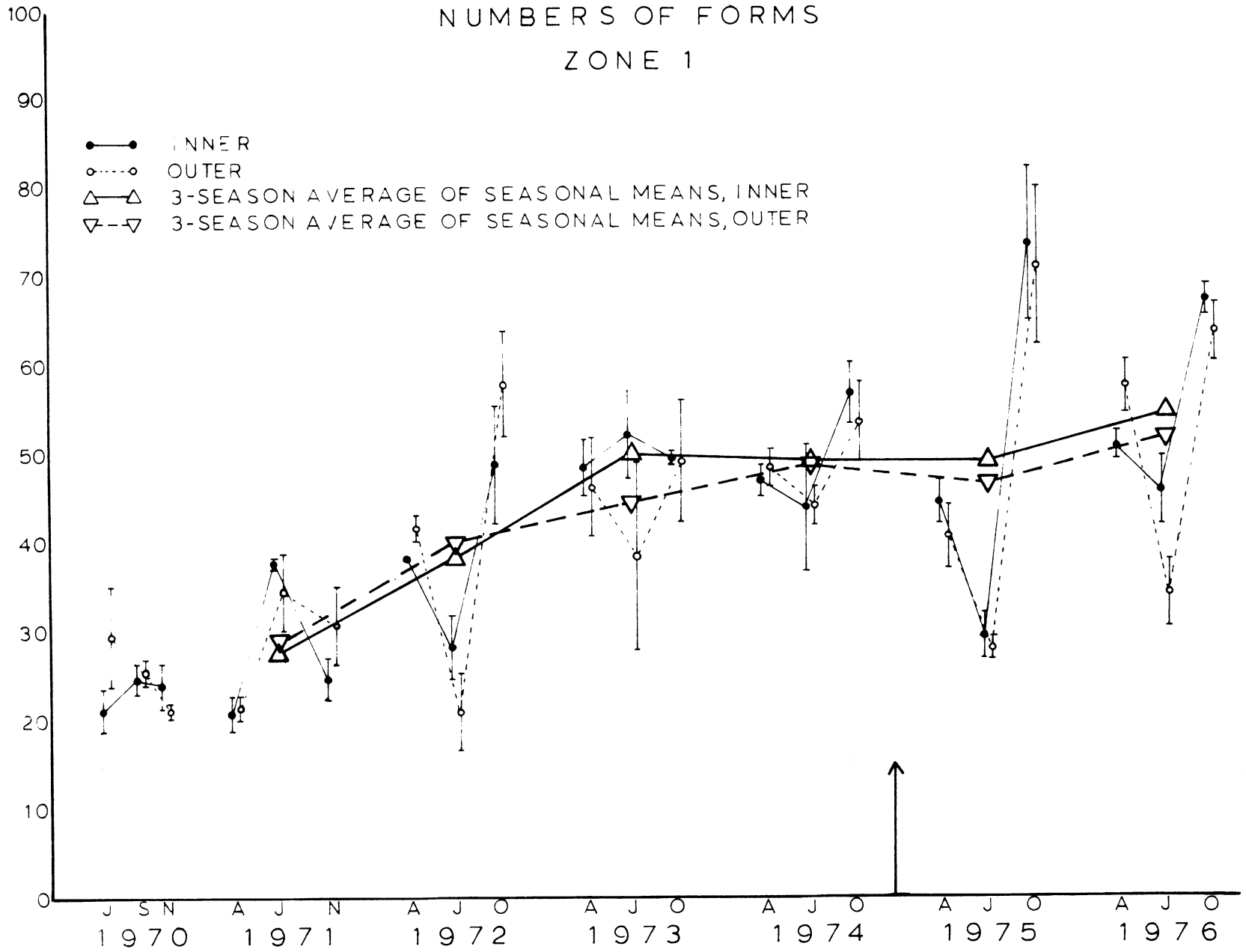

FIG. 5b. Mean numbers of phytoplanktonic forms in zone 1 by spring, summer, and fall seasons and by inner and outer station groups in 1970 - 1976. Averages of three-season mean numbers of forms are plotted in July of each year and connected from year to year. The vertical bars show the standard error. See Table 3 for sample sizes.

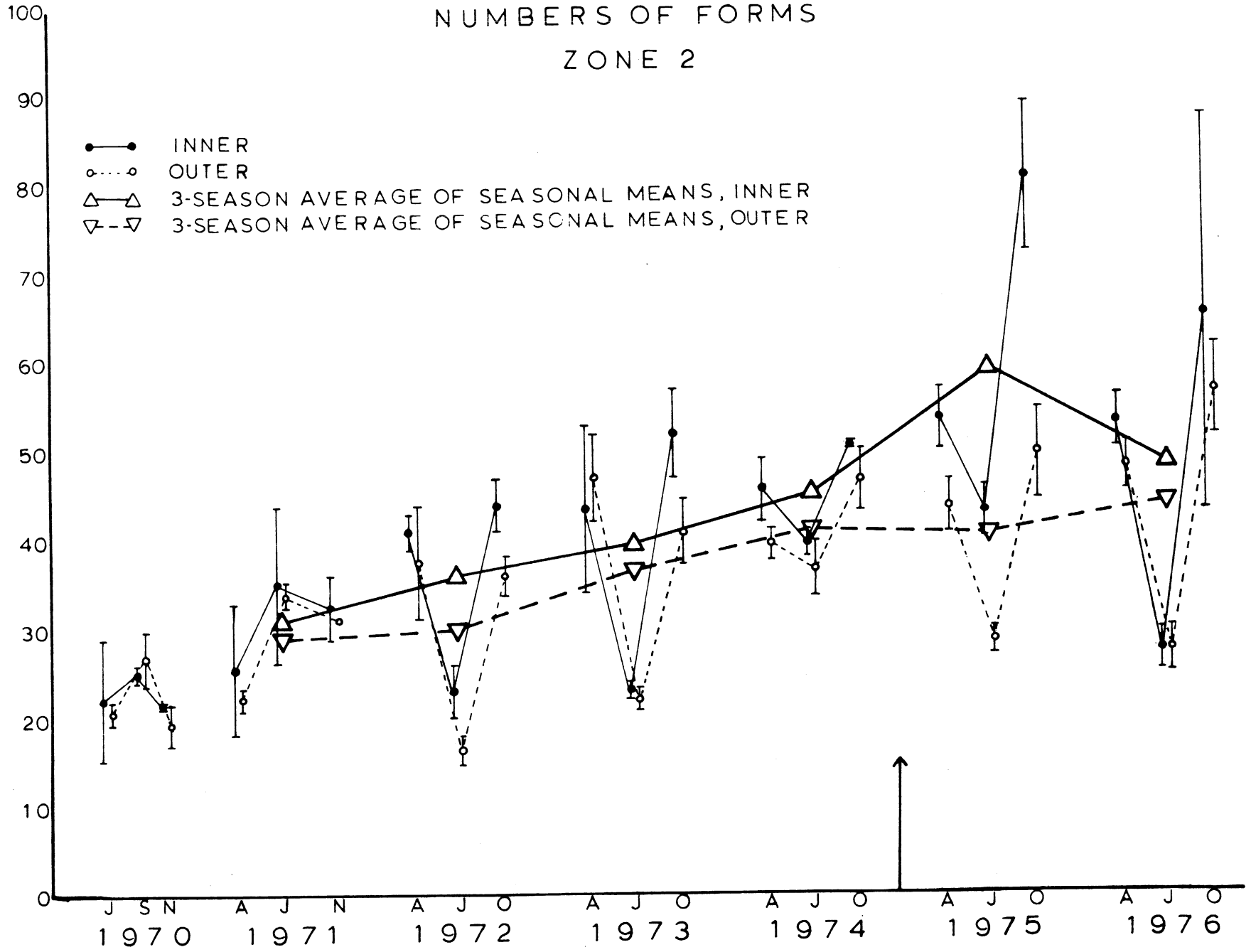

FIG. 5c. Mean numbers of phytoplanktonic forms in zone 2 by spring, summer, and fall seasons and by inner and outer station groups in 1970 - 1976. Averages of three-season mean numbers of forms are plotted in July of each year and connected from year to year. The vertical bars show the standard error. See Table 3 for sample sizes.

In neither zone 0 nor zone 1 was there any consistent superiority in numbers of forms between inner and outer stations; zone 2 in all the years since 1971 has consistently shown greater three-season averages in the stations of the inner group.

The overall tendency for increase in the number of forms in the Cook Plant phytoplankton collections since 1971 is consistent with the observations of Stoermer and Yang (1969, pp. 209 and 211) that phytoplankters have been introduced into Lake Michigan in recent decades, and that one of the effects of nutrient enrichment from man's activities has been to make the planktonic environment more accessible to forms that find their primary habitat in benthic assemblages.

There is no convincing evidence from this study of the numbers of phytoplanktonic forms that operation of the Cook Plant in 1975 and 1976 has had any effect on the phytoplankton community, instead, the general increase in numbers of forms both at stations near the plant and at two to seven miles away appears to be one of the effects of the eutrophication process in Lake Michigan.

Inner-Outer Graphical Comparisons: Phytoplankton Abundances

Johnston (1973, pp. 14-17) illustrated, with benthos data, a method for comparing seasonal abundances of phytoplankters in the central region of the Cook Plant survey area with those in distant reference regions for each of three depth zones (0 - 8 m, 8 - 16 m, and 16 - 24 m) of the Cook Plant survey area. The method is here applied to the phytoplankton of the major surveys of preoperational 1970 and operational 1976; Ayers, Southwick, and Robinson (1977) report the results of applying the method to the intervening years.

The means and standard errors of phytoplankton abundances at each depth

zone and station group combination are plotted on a time axis. By this means the situation can be followed through successive years and judgement of the effect of plant operation can be made on the bases of temporal (preoperational vs. operational) and spatial (inner vs. outer) variations in phytoplankton abundances.

The phytoplankton abundances (in cells/ml) used are those of total algae and of the nine major algal groups: coccoid blue-greens, filamentous blue-greens, coccoid greens, filamentous greens, flagellates, centric diatoms, pennate diatoms, desmids, and other algae. The use of major algal groups, instead of individual species, bypasses difficulties due to inability to always identify to species and is justifiable on the basis that members of each group have more or less similar functions in the ecosystem.

Table 7 presents for the major surveys of 1970 and 1976 the means, standard errors, and numbers of observations of abundances of total algae and the nine major groups of phytoplankton. These are graphed with the intervening years in Figure 6. Data points for each survey are slightly offset to avoid overlap. An arrow rising from the horizontal axis indicates the beginning of plant operation in early 1975.

Desmids (Fig. 6a) showed essentially no changes in abundances between preoperational and operational years.

Filamentous green algae (Fig. 6b) were somewhat increased in April of 1976 over their levels in the preoperational years and in operational 1975. In zones 1 and 2 the increase was about equal in both inner and outer stations; whether the larger increase at the inner stations of zone 0 was a plant operation effect cannot be determined at present.

The category of "other algae" (Fig. 6c) was generally increased in all zones in 1976, though in each zone similar abundances had been attained in

TABLE 7. Means, standard errors, and numbers of observations of phytoplankton abundances by seasons, depth zones, and inner or outer station groups in Cook Plant major surveys in preoperational 1970 and operational 1976 (the intervening years are reported by Ayers, Southwick, and Robinson 1977). Phytoplankton units are cells per ml. B-G = blue-greens, Filam. = filamentous.

Zone	Inner, outer	Coccoid B-G	Filam. B-G	Coccoid greens	Filam. greens	Flagel-lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total
10 JULY 1970											
0	Inner										
	Mean	15.91	37.09	111.91	2.27	184.73	330.45	317.73	27.55	39.09	1066.00
	S. E.	14.25	4.12	29.14	0.77	45.64	113.04	37.61	23.06	36.57	215.04
	N	11	11	11	11	11	11	11	11	11	11
	Outer										
	Mean	20.10	32.40	236.80	3.40	165.10	444.90	352.00	4.20	5.20	1234.40
	S. E.	17.60	5.90	78.81	0.92	15.10	130.64	39.95	1.46	5.20	215.65
	N	10	10	10	10	10	10	10	10	10	10
1	Inner										
	Mean	229.67	24.67	41.00	4.67	257.33	5.33	128.67	2.33	0.00	693.67
	S. E.	229.67	5.79	22.07	2.90	166.96	1.45	23.50	1.85	0.00	173.52
	N	3	3	3	3	3	3	3	3	3	3
	Outer										
	Mean	0.00	44.75	85.25	1.75	145.25	106.75	267.75	4.25	0.00	662.50
	S. E.	0.00	13.88	31.61	1.03	34.91	91.95	42.02	2.10	0.00	167.39
	N	4	4	4	4	4	4	4	4	4	4
2	Inner										
	Mean	0.00	36.50	201.00	3.00	84.00	6.00	199.00	2.00	0.50	531.50
	S. E.	0.00	27.50	77.00	3.00	70.00	2.00	89.00	2.00	0.50	116.50
	N	2	2	2	2	2	2	2	2	2	2
	Outer										
	Mean	0.00	31.00	31.50	1.25	84.50	12.75	173.75	1.00	0.00	335.75
	S. E.	0.00	12.77	12.23	0.63	11.81	6.55	25.44	0.41	0.00	53.34
	N	4	4	4	4	4	4	4	4	4	4

TABLE 7 continued.

Zone	Inner, outer	Coccoid B-G	Filam. B-G	Coccoid greens	Filam. greens	Flagel-lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total
25 SEPTEMBER 1970											
0	Inner										
	Mean	11.00	1.70	37.50	1.30	106.40	74.70	82.40	1.10	55.40	371.50
	S. E.	2.06	0.52	7.12	0.37	22.35	20.06	28.46	0.67	40.16	71.22
	N	10	10	10	10	10	10	10	10	10	10
	Outer										
	Mean	14.50	1.20	34.50	1.10	96.50	119.90	158.10	0.40	14.70	440.90
	S. E.	2.37	0.39	10.69	0.43	18.73	53.40	50.89	0.16	2.90	99.50
	N	10	10	10	10	10	10	10	10	10	10
1	Inner										
	Mean	9.67	2.33	74.67	1.67	93.33	8.33	2.33	0.33	8.33	201.00
	S. E.	0.88	1.35	9.94	0.66	30.69	4.37	1.45	0.33	2.33	26.56
	N	3	3	3	3	3	3	3	3	3	3
	Outer										
	Mean	15.25	3.50	64.00	1.25	164.50	18.50	19.50	0.75	11.00	298.25
	S. E.	5.07	1.33	15.52	0.63	44.73	17.18	9.64	0.48	2.35	62.91
	N	4	4	4	4	4	4	4	4	4	4
2	Inner										
	Mean	17.50	7.00	59.00	2.50	119.50	19.00	36.00	0.00	7.00	267.50
	S. E.	0.50	3.00	21.00	2.50	41.50	2.00	19.00	0.00	1.00	82.50
	N	2	2	2	2	2	2	2	2	2	2
	Outer										
	Mean	17.25	2.50	45.50	1.75	136.50	22.75	56.50	0.75	17.50	301.00
	S. E.	3.35	1.04	7.29	0.25	34.59	7.83	21.52	0.48	9.74	61.10
	N	4	4	4	4	4	4	4	4	4	4

TABLE 7 continued.

Zone	Inner, outer	Coccoid B-G	Filam. B-G	Coccoid greens	Filam. greens	Flagel-lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total
12 NOVEMBER 1970											
0	Inner										
	Mean	3.90	1.50	10.00	0.30	208.20	8.90	34.10	1.30	13.10	280.20
	S. E.	0.52	0.48	2.22	0.15	28.54	5.36	8.41	0.54	2.47	35.51
	N	10	10	10	10	10	10	10	10	10	10
	Outer										
	Mean	4.40	2.20	13.10	1.80	257.90	41.70	74.10	1.10	12.50	408.00
	S. E.	0.48	1.03	1.41	0.47	44.98	15.48	16.49	0.38	2.22	60.58
	N	10	10	10	10	10	10	10	10	10	10
1	Inner										
	Mean	3.33	0.67	14.33	0.33	169.00	2.67	19.67	0.67	15.00	225.33
	S. E.	1.33	0.67	5.55	0.33	65.55	0.33	10.81	0.33	6.25	86.91
	N	3	3	3	3	3	3	3	3	3	3
	Outer										
	Mean	8.75	1.00	13.50	1.25	229.50	12.75	42.25	0.75	7.25	316.25
	S. E.	3.33	0.41	0.96	0.63	71.10	8.17	5.19	0.75	1.93	83.51
	N	4	4	4	4	4	4	4	4	4	4
2	Inner										
	Mean	3.50	1.50	7.00	0.50	142.50	2.00	7.50	1.50	9.50	175.00
	S. E.	0.50	0.50	2.00	0.50	18.50	2.00	3.50	0.50	0.50	26.00
	N	2	2	2	2	2	2	2	2	2	2
	Outer										
	Mean	10.25	1.00	21.75	0.25	165.50	11.25	72.25	1.00	6.00	289.00
	S. E.	3.07	0.41	2.93	0.25	28.14	6.53	28.10	0.41	1.36	45.03
	N	4	4	4	4	4	4	4	4	4	4

TABLE 7 continued.

Zone	Inner, outer	Coccoid B-G	Filam. B-G	Coccoid greens	Filam. greens	Flagel-lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total
14 APRIL 1976											
0	Inner										
	Mean	124.63	82.08	148.40	173.48	1051.21	2214.89	2423.26	0.55	116.63	6335.13
	S. E.	53.94	14.61	38.02	53.40	161.37	283.99	350.84	0.37	23.98	649.37
	N	12	12	12	12	12	12	12	12	12	12
	Outer										
	Mean	146.57	94.18	90.34	55.88	1104.26	1756.73	2005.09	0	124.37	5377.40
	S. E.	94.08	18.89	21.54	30.46	208.54	240.93	237.11	0	35.92	683.56
	N	10	10	10	10	10	10	10	10	10	10
1	Inner										
	Mean	4.43	60.23	68.53	64.10	872.67	926.33	1126.40	1.67	45.90	3170.20
	S. E.	4.43	11.96	35.44	43.04	137.78	143.80	269.97	0.95	17.12	441.31
	N	3	3	3	3	3	3	3	3	3	3
	Outer										
	Mean	528.93	98.65	111.50	58.85	1524.60	1554.43	1399.83	0	126.43	5403.20
	S. E.	324.48	15.81	16.03	58.85	217.48	302.66	74.14	0	40.83	412.34
	N	4	4	4	4	4	4	4	4	4	4
2	Inner										
	Mean	58.05	21.55	35.65	76.25	787.00	776.80	790.90	3.3	46.40	2546.00
	S. E.	58.05	11.65	22.35	76.25	105.30	244.60	243.70	3.3	36.50	756.90
	N	2	2	2	2	2	2	2	2	2	2
	Outer										
	Mean	76.70	18.25	23.63	134.30	549.20	401.68	480.00	0	25.73	1709.45
	S. E.	72.34	5.03	3.19	109.39	164.97	21.49	130.91	0	11.12	287.76
	N	4	4	4	4	4	4	4	4	4	4

TABLE 7 continued.

Zone	Inner, outer	Coccoid B-G	Filam. B-G	Coccoid greens	Filam. greens	Flagel-lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total
15 JULY 1976											
0	Inner										
	Mean	100.52	70.40	526.17	4.08	637.53	640.01	594.42	2.35	259.01	2834.45
	S. E.	45.09	22.94	82.52	1.34	98.34	163.21	195.31	0.74	57.89	513.89
	N	12	12	12	12	12	12	12	12	12	12
	Outer										
	Mean	74.62	87.46	422.14	2.49	509.93	761.65	450.92	1.41	174.26	2484.85
	S. E.	43.98	30.84	97.00	1.38	53.76	271.79	185.79	0.70	52.55	556.33
	N	10	10	10	10	10	10	10	10	10	10
1	Inner										
	Mean	48.10	386.87	296.23	0	504.90	225.50	49.47	0	72.40	1583.43
	S. E.	27.97	90.26	47.50	0	94.43	67.59	17.29	0	31.01	147.95
	N	3	3	3	3	3	3	3	3	3	3
	Outer										
	Mean	66.13	550.35	234.40	1.03	390.88	119.98	32.13	0.20	24.48	2167.33
	S. E.	27.72	399.35	31.95	1.03	113.40	16.37	5.98	0.20	7.48	1174.05
	N	4	4	4	4	4	4	4	.4	4	4
2	Inner										
	Mean	4.95	397.90	150.05	1.65	700.55	134.30	28.20	1.65	56.35	1475.65
	S. E.	4.95	63.00	22.35	1.65	30.65	6.60	0.00	1.65	4.95	6.65
	N	2	2	2	2	2	2	2	2	2	2
	Outer										
	Mean	102.18	53.65	237.73	0	439.78	184.88	8.70	0	24.45	1051.43
	S. E.	52.38	20.99	74.49	0	120.62	22.36	7.04	0	11.22	155.75
	N	4	4	4	4	4	4	4	4	4	4

TABLE 7 continued.

Zone	Inner, outer	Coccoid B-G	Filam. B-G	Coccoid greens	Filam. greens	Flagel-lates	Centric diatoms	Pennate diatoms	Desmids	Other algae	Total
14 OCTOBER 1976											
0	Inner										
	Mean	219.69	60.24	377.36	25.29	481.66	671.24	712.14	0.28	280.48	2828.38
	S. E.	69.61	25.63	86.02	6.94	66.05	81.10	133.33	0.28	42.85	356.58
	N	12	12	12	12	12	12	12	12	12	12
	Outer										
	Mean	393.13	5.15	286.35	20.06	535.23	608.36	759.55	0.66	230.50	2838.93
	S. E.	145.27	2.69	69.17	4.64	58.56	79.46	123.46	0.66	49.32	470.88
	N	10	10	10	10	10	10	10	10	10	10
1	Inner										
	Mean	416.73	1.10	175.77	11.60	563.73	506.27	456.53	0	142.03	2273.73
	S. E.	326.56	1.10	48.31	7.82	201.64	115.93	36.37	0	38.35	662.38
	N	3	3	3	3	3	3	3	3	3	3
	Outer										
	Mean	241.25	12.85	148.40	4.58	808.75	470.05	756.10	0.43	159.60	2601.93
	S. E.	68.38	11.25	34.80	3.14	123.69	86.53	176.11	0.43	29.81	331.74
	N	4	4	4	4	4	4	4	4	4	4
2	Inner										
	Mean	272.75	15.75	227.15	4.15	991.50	683.15	531.40	0	131.80	2857.65
	S. E.	272.75	15.75	24.85	4.15	56.40	26.55	7.50	0	82.10	489.95
	N	2	2	2	2	2	2	2	2	2	2
	Outer										
	Mean	260.33	22.10	117.17	6.63	585.87	551.03	491.33	0	66.30	2100.77
	S. E.	177.14	22.10	11.44	6.63	30.17	156.38	222.21	0	5.36	175.22
	N	3	3	3	3	3	3	3	3	3	3

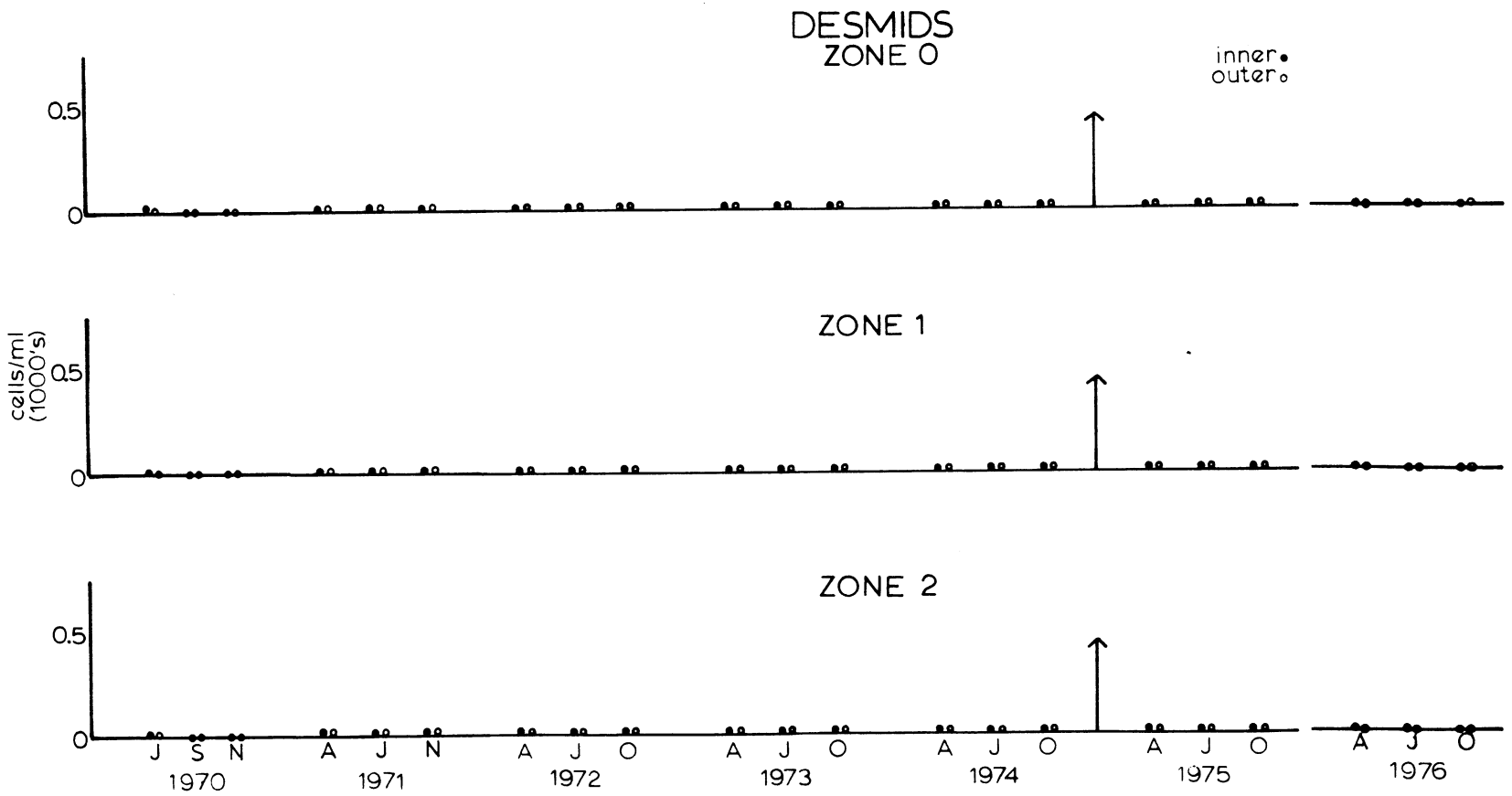

FIG. 6a. Mean abundances of desmids in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. Space does not permit the drawing of standard error bars. See Table 7 for standard errors and sample sizes.

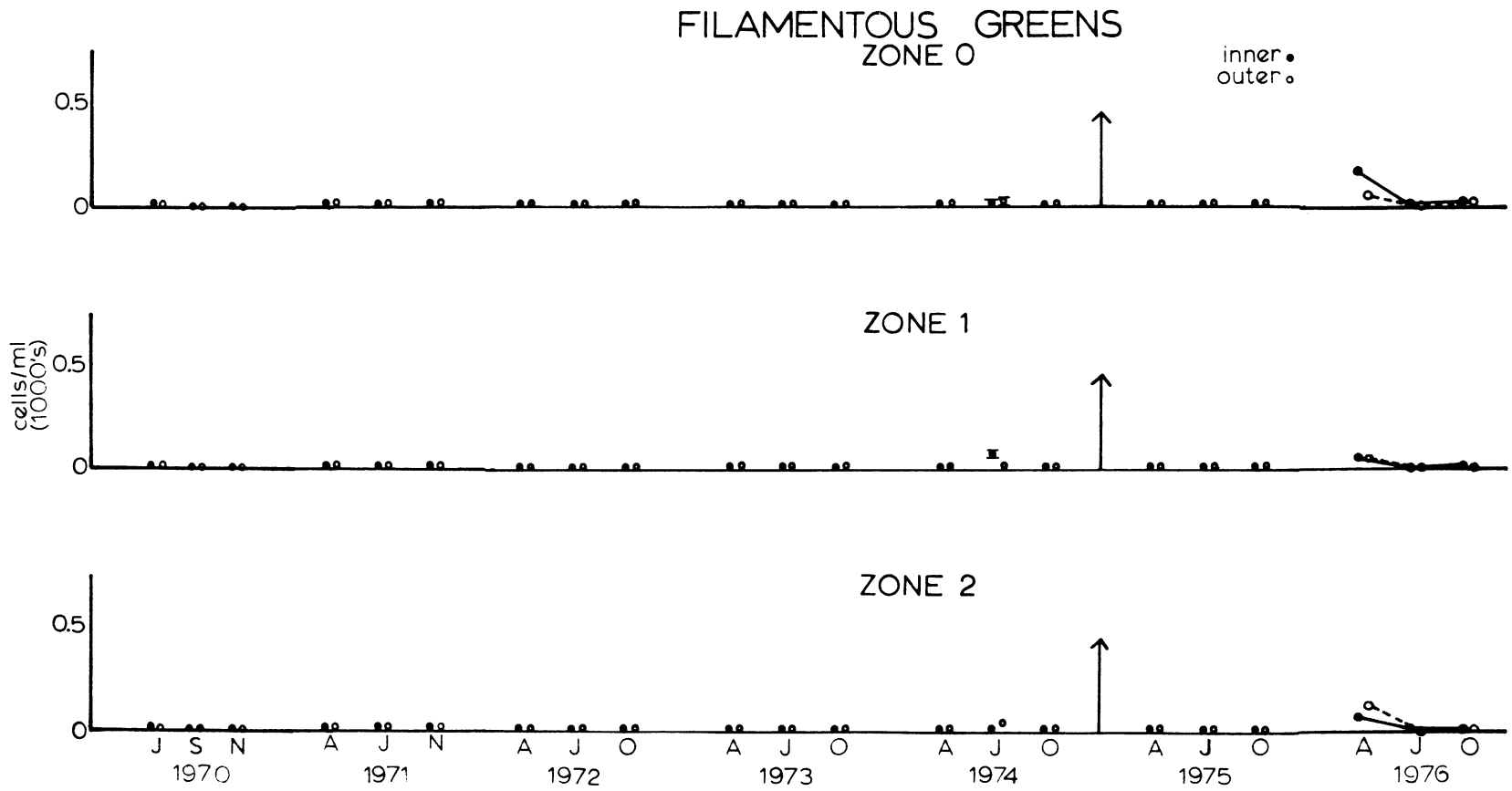

FIG. 6b. Mean abundances of filamentous green algae in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. Space does not permit the drawing of standard error bars. See Table 7 for standard errors and sample sizes.

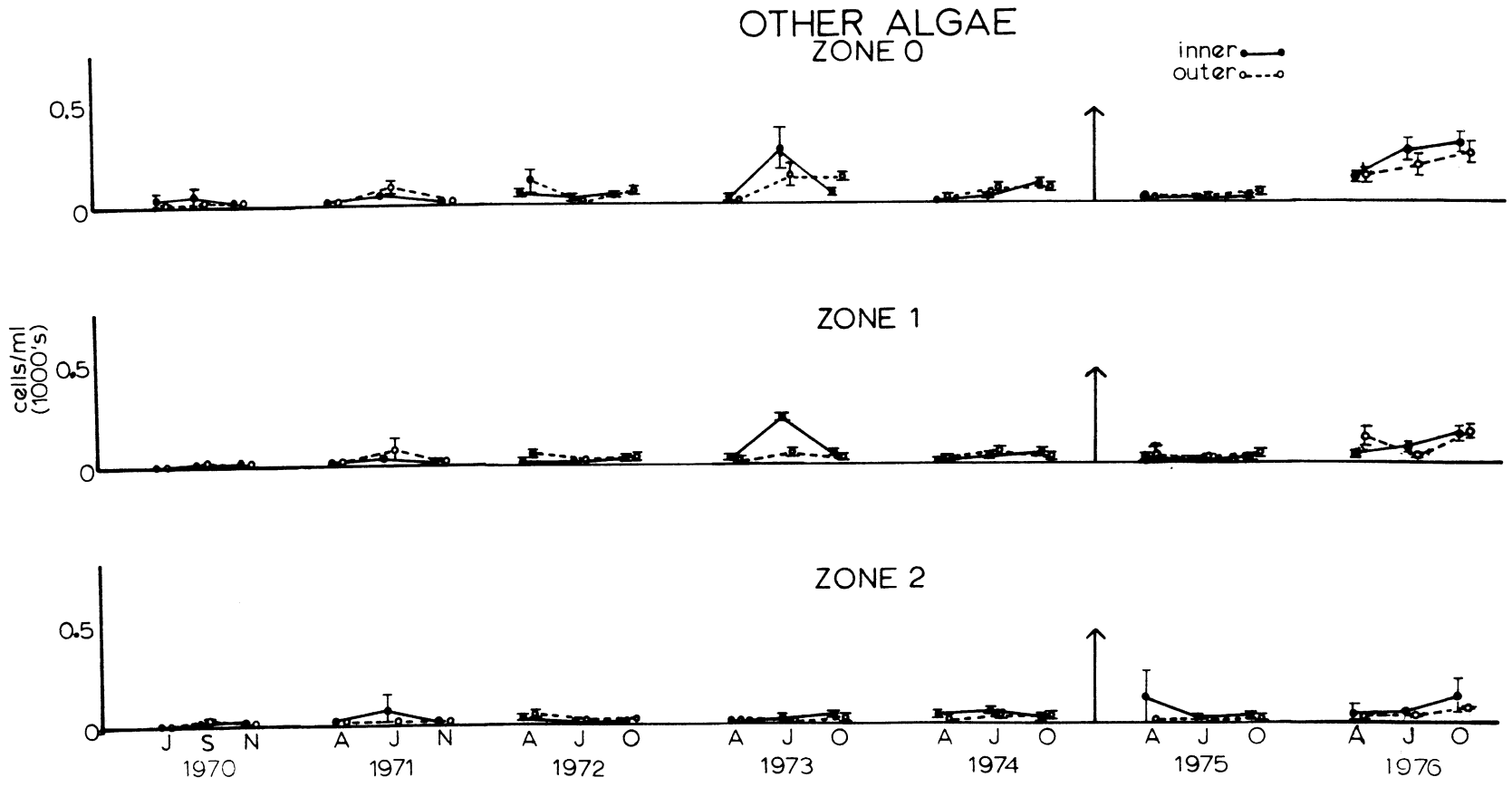

FIG. 6c. Mean abundances of "other algae" in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

preoperational years and the increases were about equally shown by both inner and outer stations.

Filamentous blue-greens (Fig. 6d) showed increases over preoperational levels in all three zones in operational 1975 and 1976. It is to be noted, however, that in zones 0 and 1 the increases at inner and outer stations were essentially equal, or were greater in the outer stations. In zone 2 the increases at inner stations were greater than at outer in October 1975 and July 1976. It is doubtful that the increases in these months were plant-related for these are offshore stations where the plant's discharge plume is present but little of the time.

Coccoid blue-greens (Fig. 6e) after being present in small amounts during most of the preoperational years increased in abundance in the Octobers of preoperational 1974 and operational 1975. It is noted that the October 1975 increases were nearly equal in inner and outer stations of zone 0, while in zone 1 the increase was greater in the outer stations, in zone 2 the increase at the inner stations was definitely greater than at the outer stations and the above comment about the thermal plume reaching these offshore stations also applies here. Operational 1976 exhibited more coccoid blue-greens at outer stations in six of the nine cases. In zones 0 and 2 the parallelism between inner and outer stations was good. The outstanding failure of parallelism was in the greater abundance of these organisms in the outer stations in April in zone 1.

Coccoid green algae (Fig. 6f) in 1975 and 1976 exhibited, in all but one case, very good parallelism between the curves for inner and outer station groups. The inner stations of zone 2 in October 1976 did not show the autumn decline that the outer stations did, but even then the level of these algae was not substantially different than these stations exhibited in the Julys of

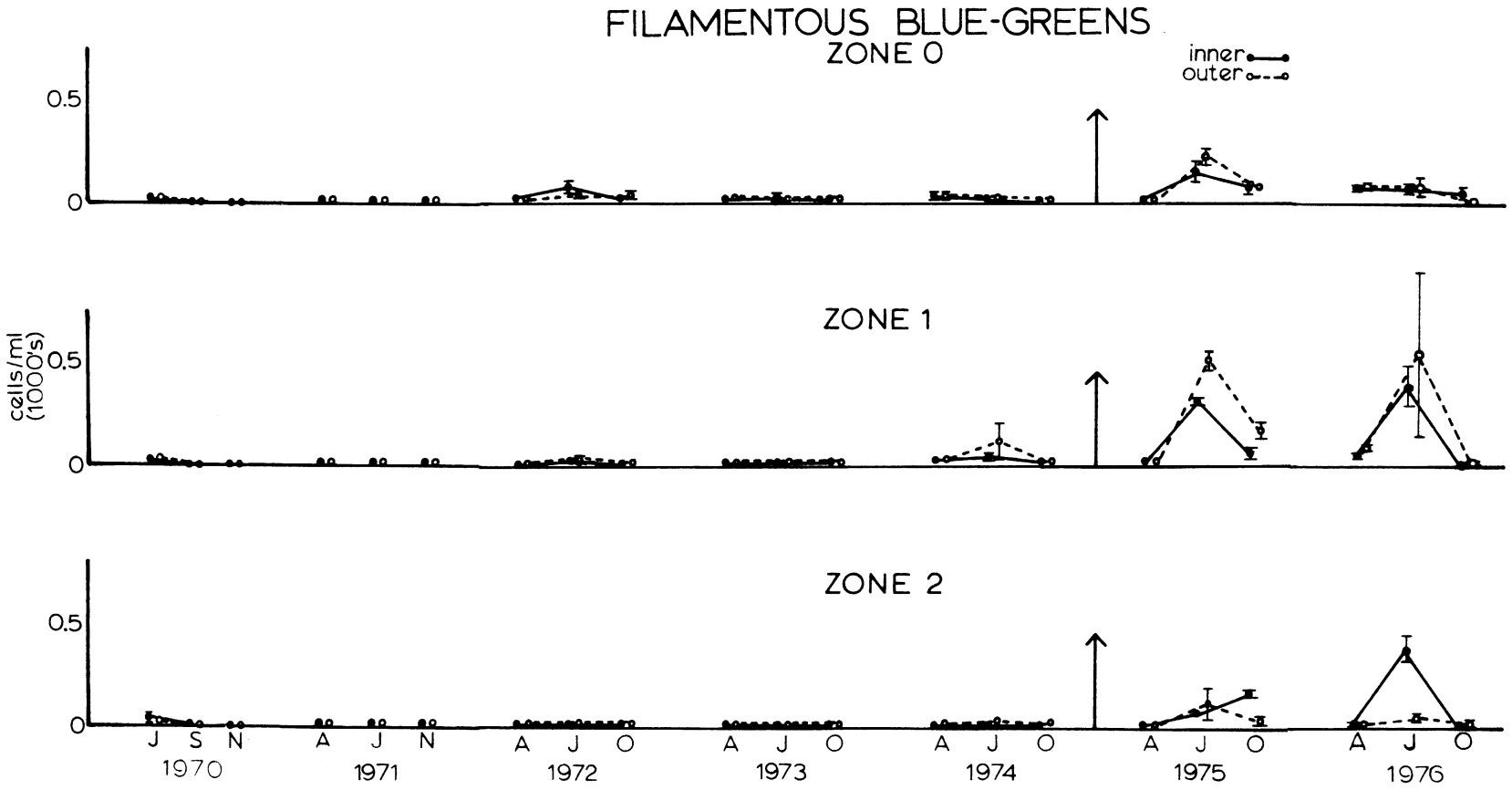

FIG. 6d. Mean abundances of filamentous blue-green algae in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. Where space permits, vertical bars show the standard error. See Table 7 for sample sizes and other standard errors.

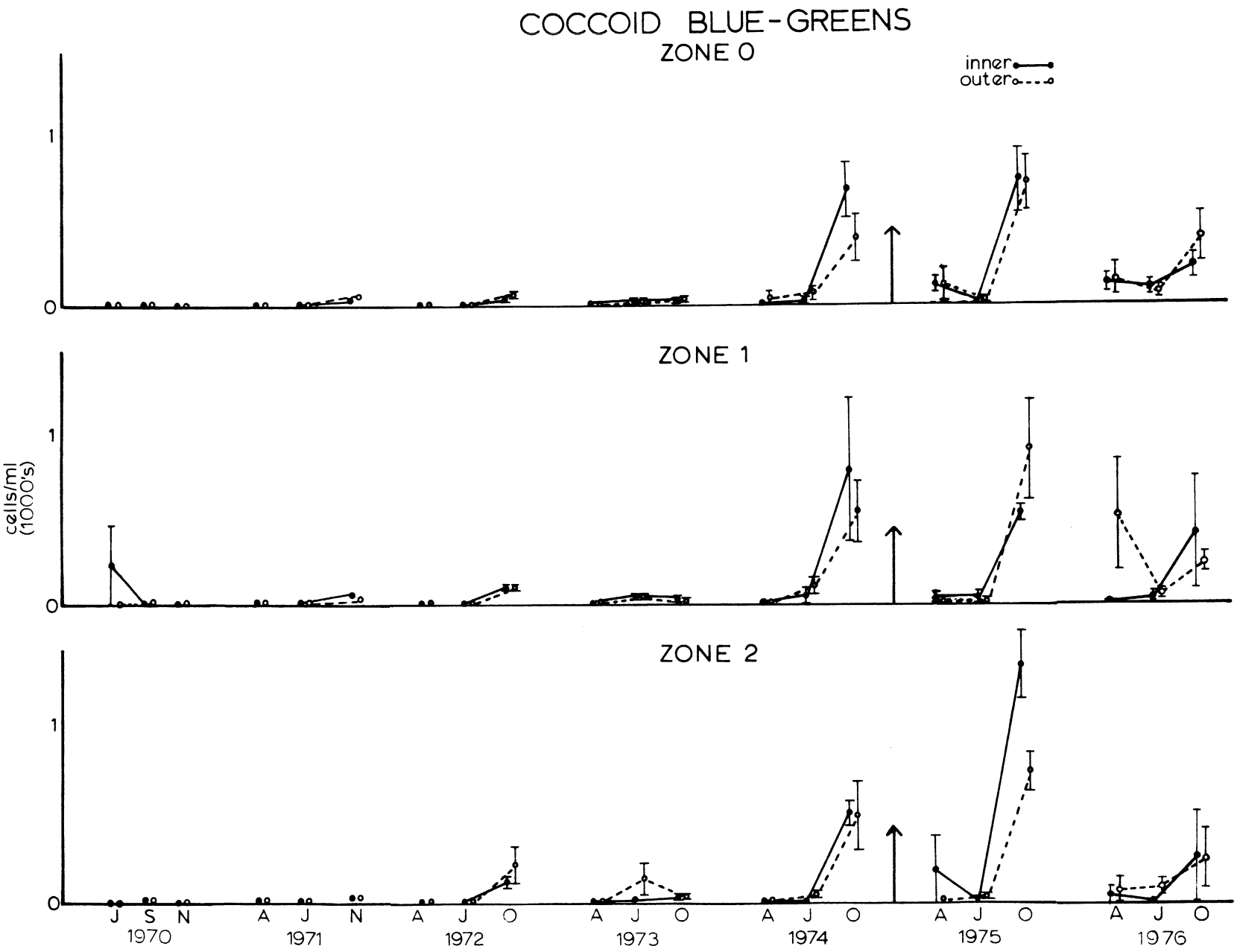

FIG 6e. Mean abundances of coccoid blue-green algae in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. Bars show the standard error. See Table 7 for sample sizes.

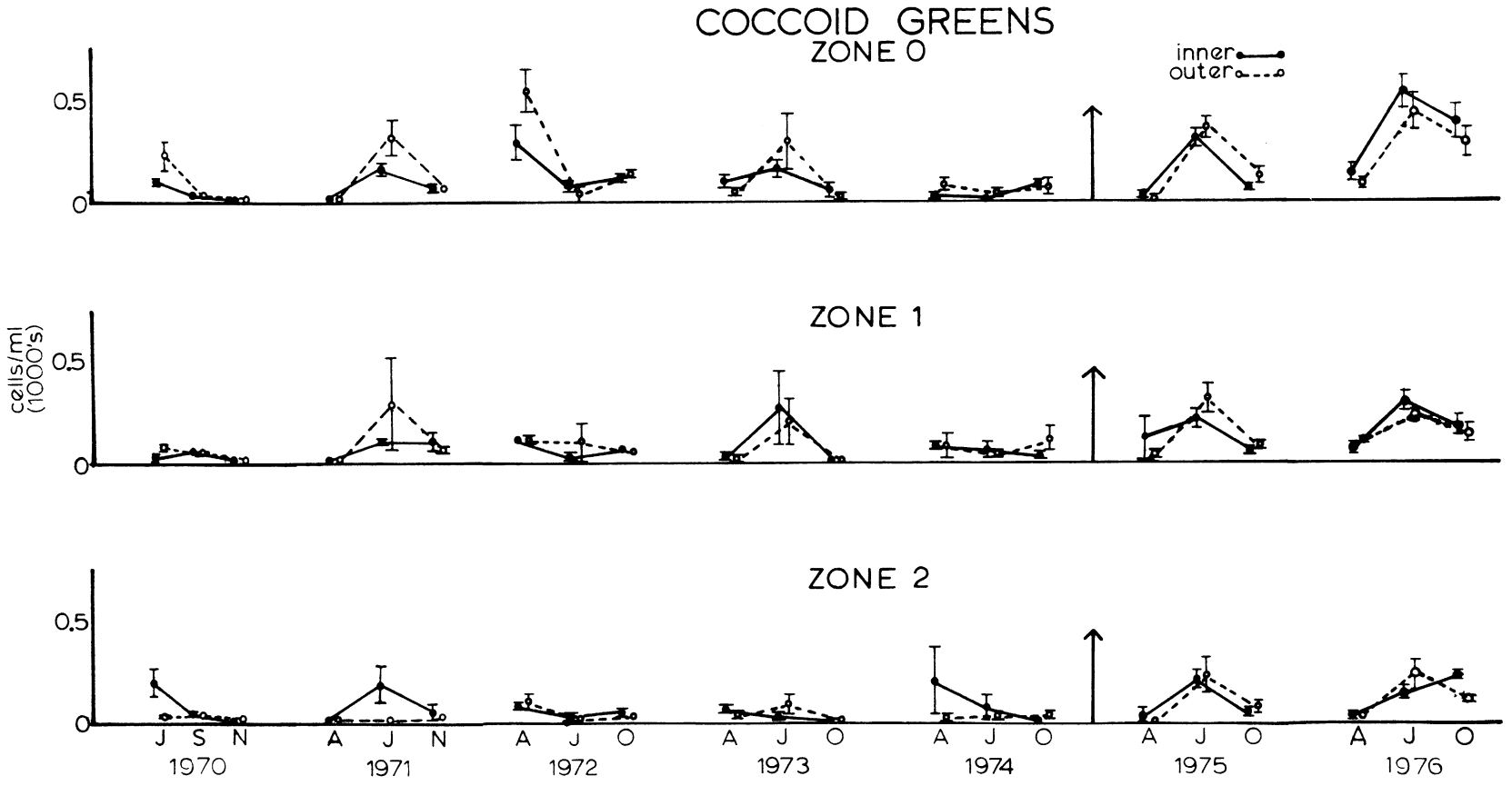

FIG. 6f. Mean abundances of coccoid green algae in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

1970 and 1971 or April 1974 of the preoperational years. In zone 0 coccoid greens showed somewhat higher levels in all three seasons of 1976 than had been the case in the immediately preceding years, but the higher levels were present in both the inner and outer stations, and the highest was equalled by levels reached in the outer stations in April 1972.

Flagellates (Fig. 6g) in all three zones showed steadily rising trends of abundance in both inner and outer station groups from 1971 through 1976. Parallelism between curves for inner and outer stations was generally good in all three zones in 1975 and in zone 0 in 1976. Failure of parallelism occurred in zone 1 in April and October 1976 when the outer stations showed higher flagellate levels than did the inner stations. Parallelism between inner and outer station curves in zone 2 in 1976 was good, but the inner stations in each season contained higher abundances of flagellates than did the outer stations. The cause of higher abundances in the inner stations of this zone cannot at present be determined, but the previous comment about the plant's plume seldom reaching these offshore stations can be repeated here.

Pennate diatoms (Fig. 6h) have, with the exceptions of July 1974 in zones 0 and 1, exhibited good parallelism between the curves for inner and outer station groups in all the years studied. High levels of pennates attained in April 1975 in both inner and outer stations in all zones, and in zones 1 and 2 in April 1976, were not significantly higher than those of April 1974. Pennate levels in zone 0 in April 1976 attained 2443 $\pm$ 350 in the inner stations and 2005 $\pm$ 237 in the outer stations; occurring in both station groups, the high levels in this zone are more apt to be an effect of spring runoff than of plant operation. The July low levels of pennates in all three zones in 1975 and 1976 were not lower than summer "crashes" observed in preoperational years. The October levels of pennates in all zones

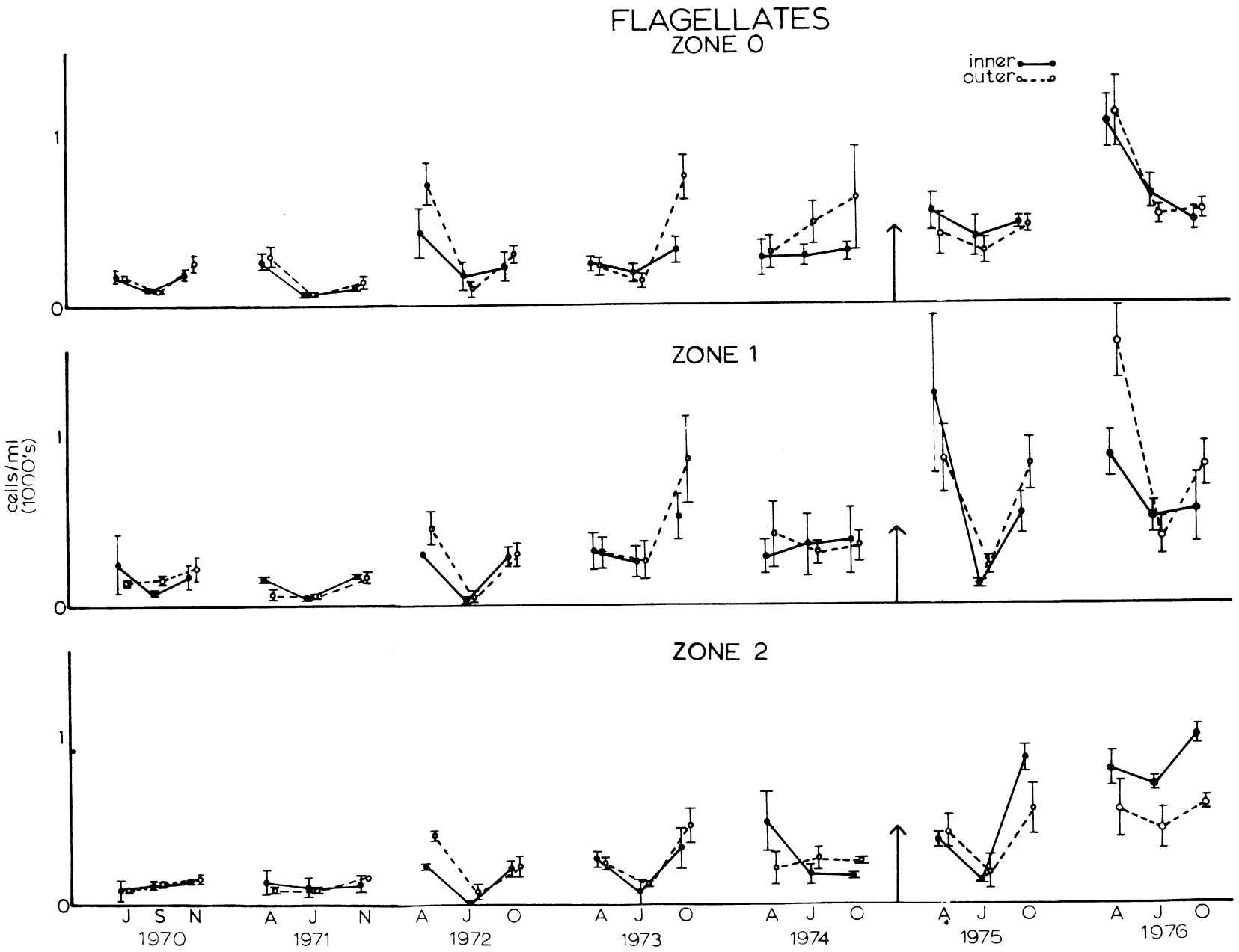

FIG. 6g. Mean abundances of flagellates in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

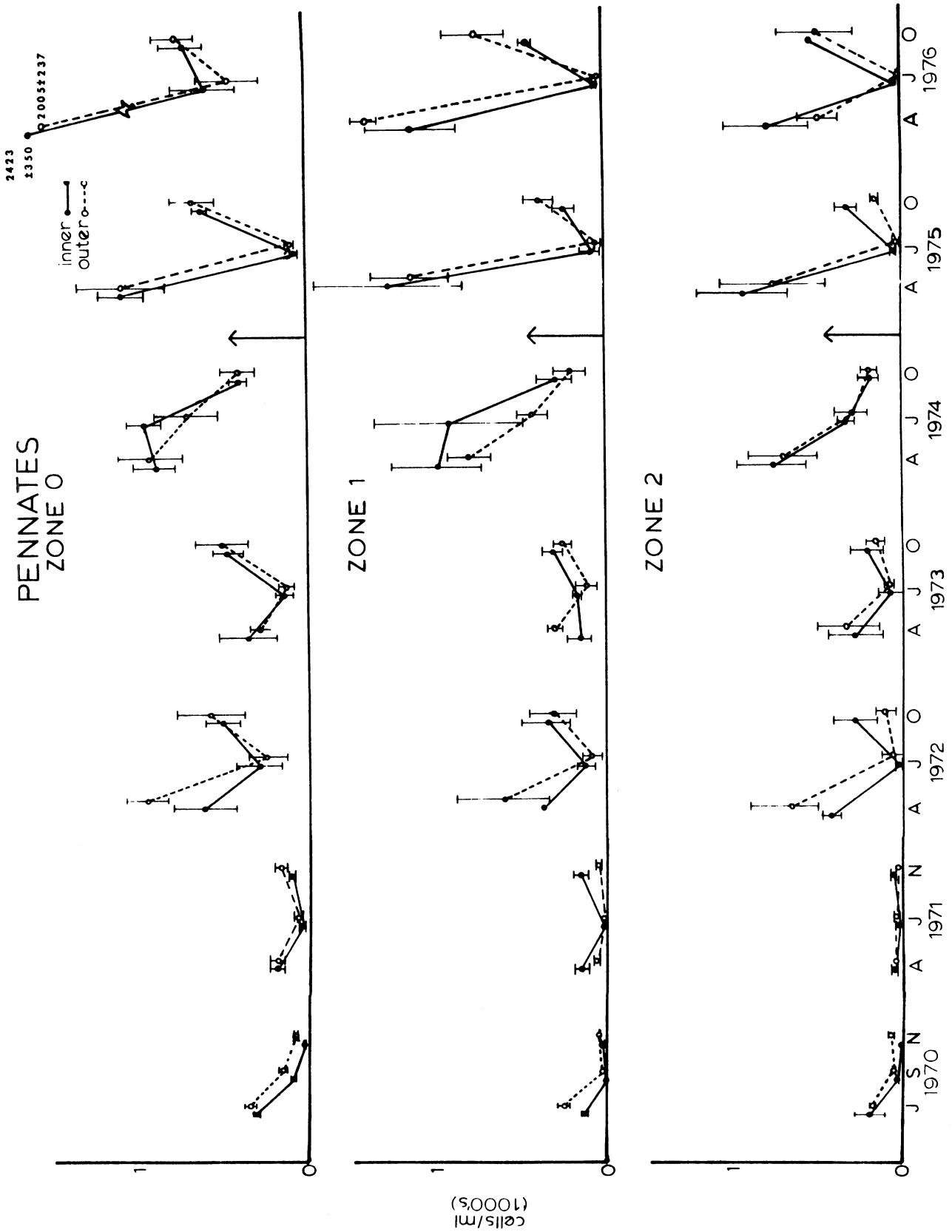

FIG. 6h. Mean abundances of pennate diatoms in zones 0 - 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

in 1976 were the highest yet observed; if this is a plant effect it could be considered a desirable one.

Centric diatoms (Figs. 6i, 6j, and 6k) have, in all the years studied, shown rather good parallelism of the curves for inner and outer stations; parallelism was poor in April 1972 in all zones and in zone 2 in the Octobers of 1972 and 1973 and April 1975. Zones 0 and 1 showed unusually high abundances of centrics in July 1973; this condition was not present in zone 2 in that month, nor has it occurred since. High levels in the Aprils of 1975 and 1976 were no higher in zone 0 than had been observed there in the outer stations in April 1972, in both sets of stations in October 1972, and in both station sets in July 1973, i.e. they are considered to be within the range of normal variation. The April levels in zone 1 in 1974 and 1976 were within the range of abundances seen in 1973. April abundances in the outer stations of zone 2 in 1975 and in both station sets in 1976 were within the abundance ranges seen in the Aprils of 1973 and 1974 in this zone; inner station abundances in this zone in April 1974 were high, but very similar to levels at the inner stations of zone 1 in that month. Protrusion of a water mass high in centrics from the inner stations of zone 1 to the inner stations of zone 2 is a possible explanation, and indeed is shown in Figure 3 of Ayers, Southwick, and Robinson (1977) for this date.

The July summer minima of centric diatom abundances in operational 1975 and 1976 were within the abundance ranges of centrics in preoperational years. October abundances of centrics in 1975 and 1976 were within ranges seen in preoperational years, except that in 1976 in zone 2 the level of centrics in the outer stations was the highest yet seen in that station group in October.

Annual curves for abundances of total algae (Figs. 6L, 6m, and 6n) in

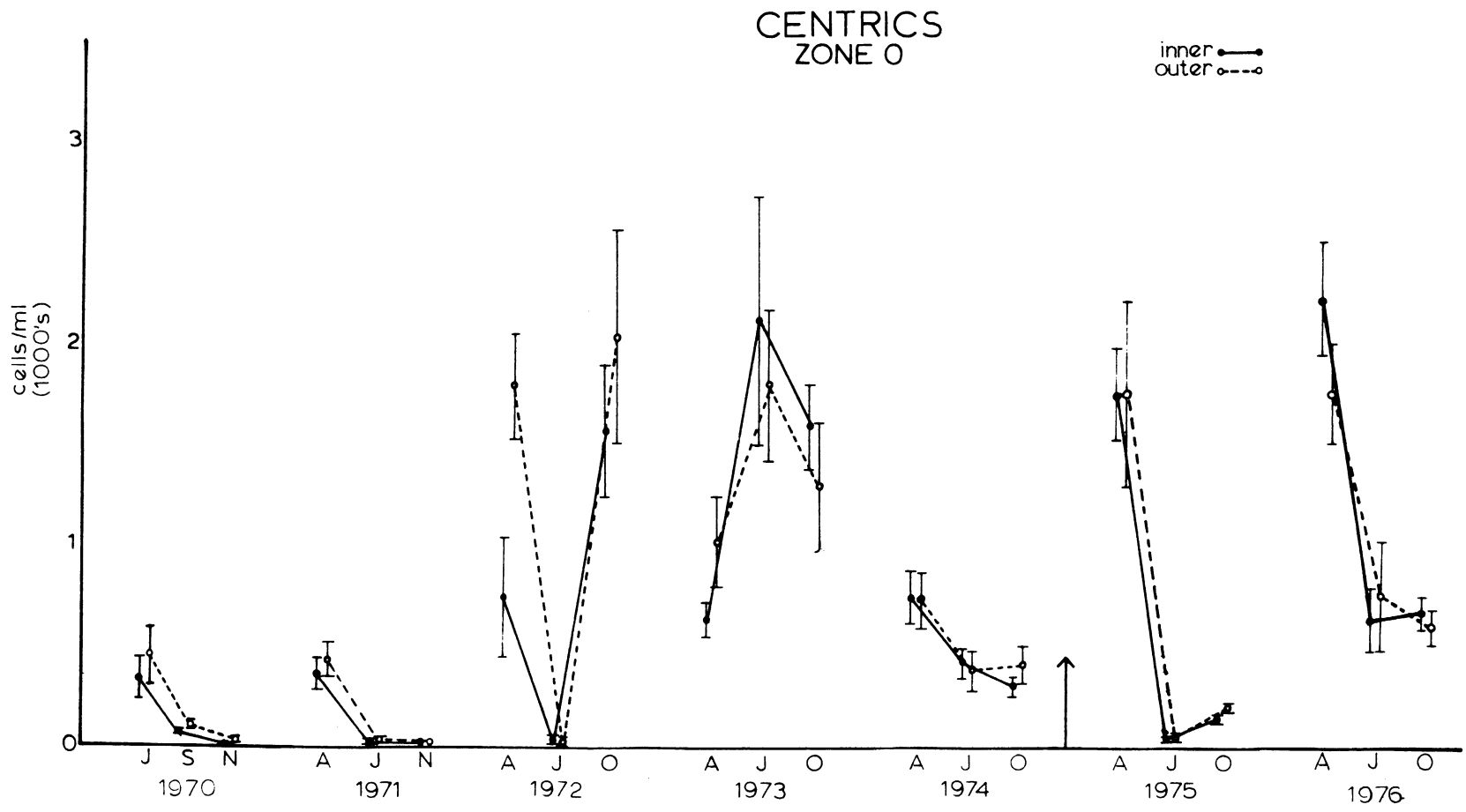

FIG. 6i. Mean abundances of centric diatoms in zone 0 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

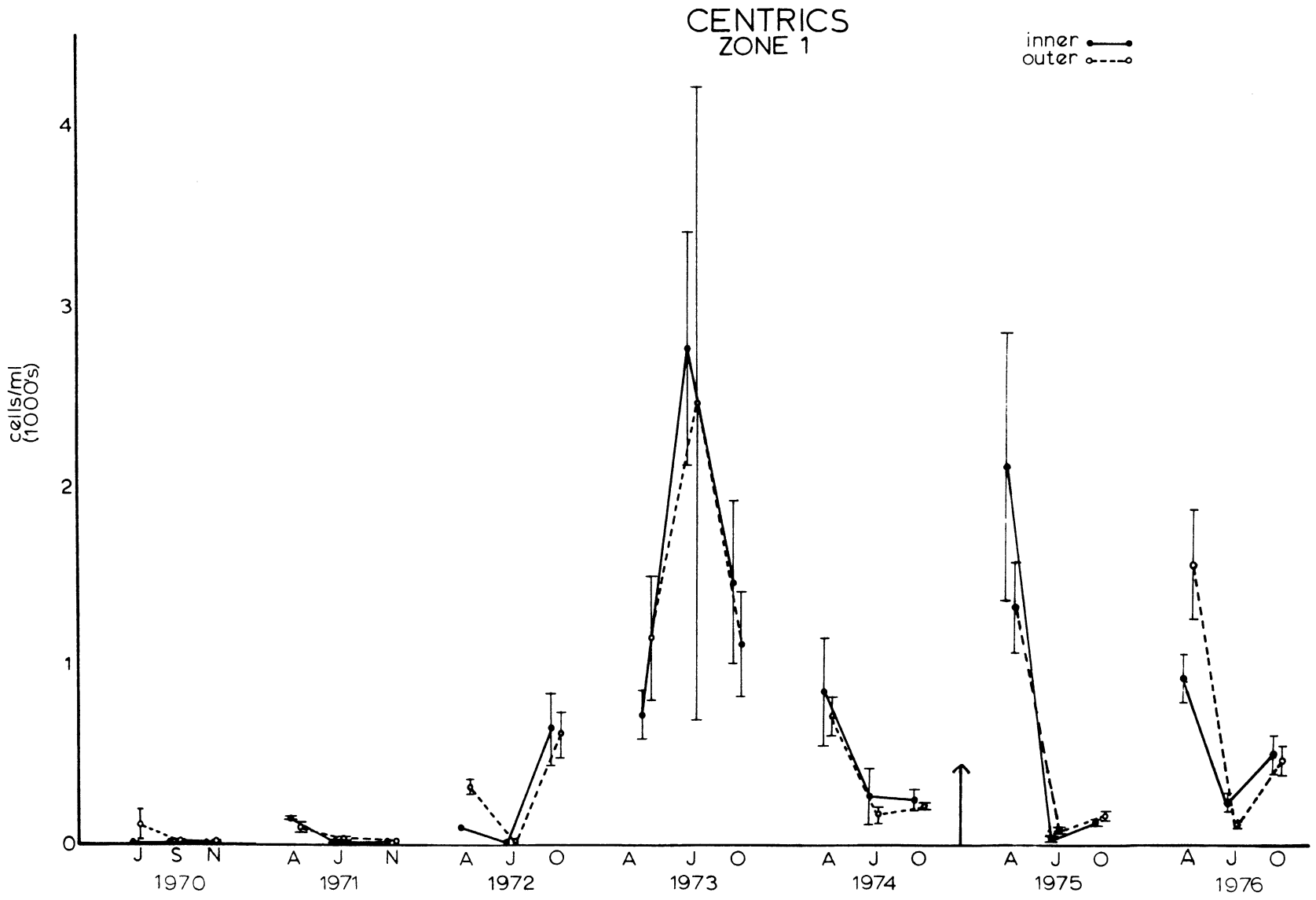

FIG. 6j. Mean abundances of centric diatoms in zone 1 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

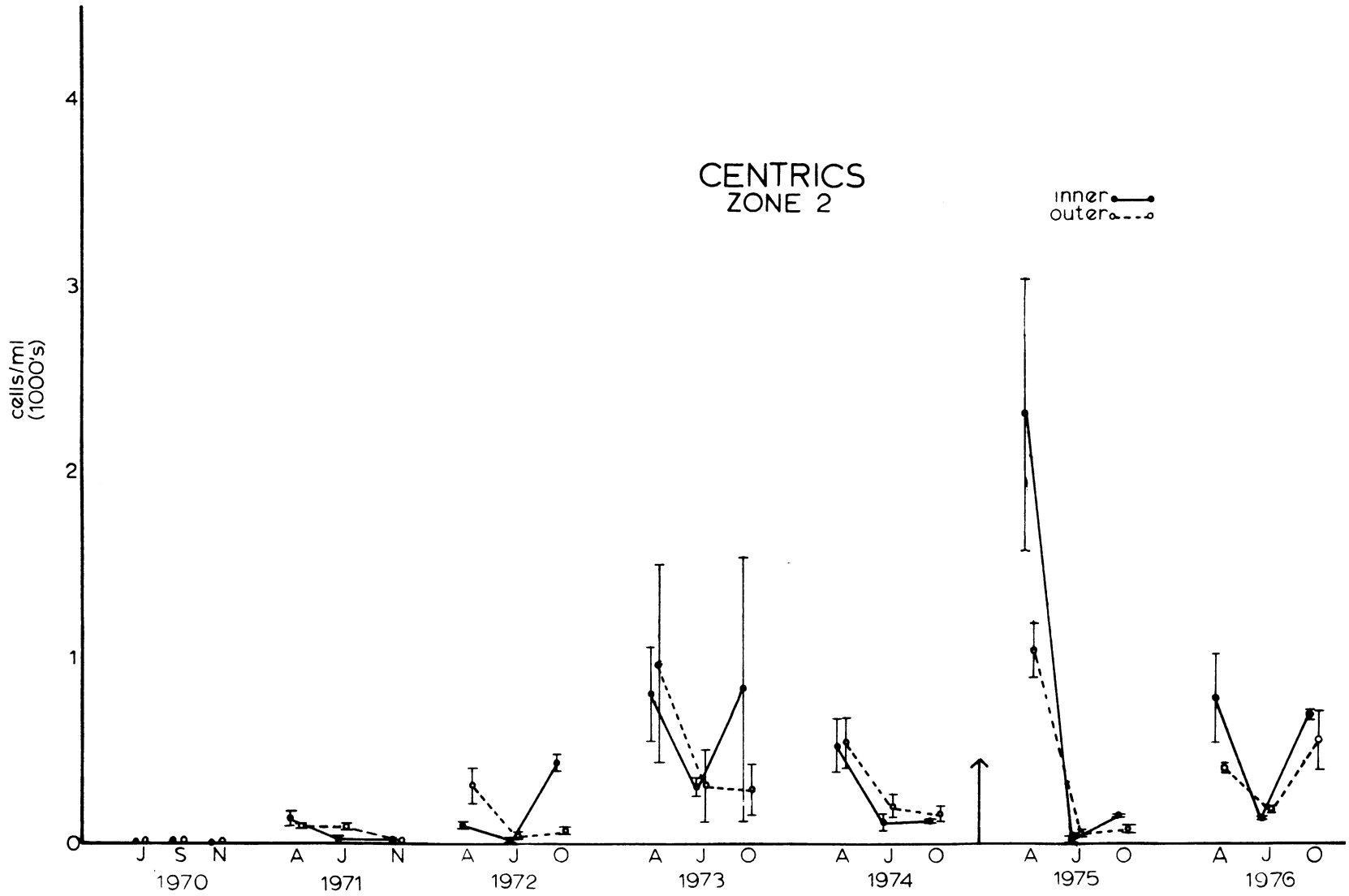

FIG. 6k. Mean abundances of centric diatoms in zone 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

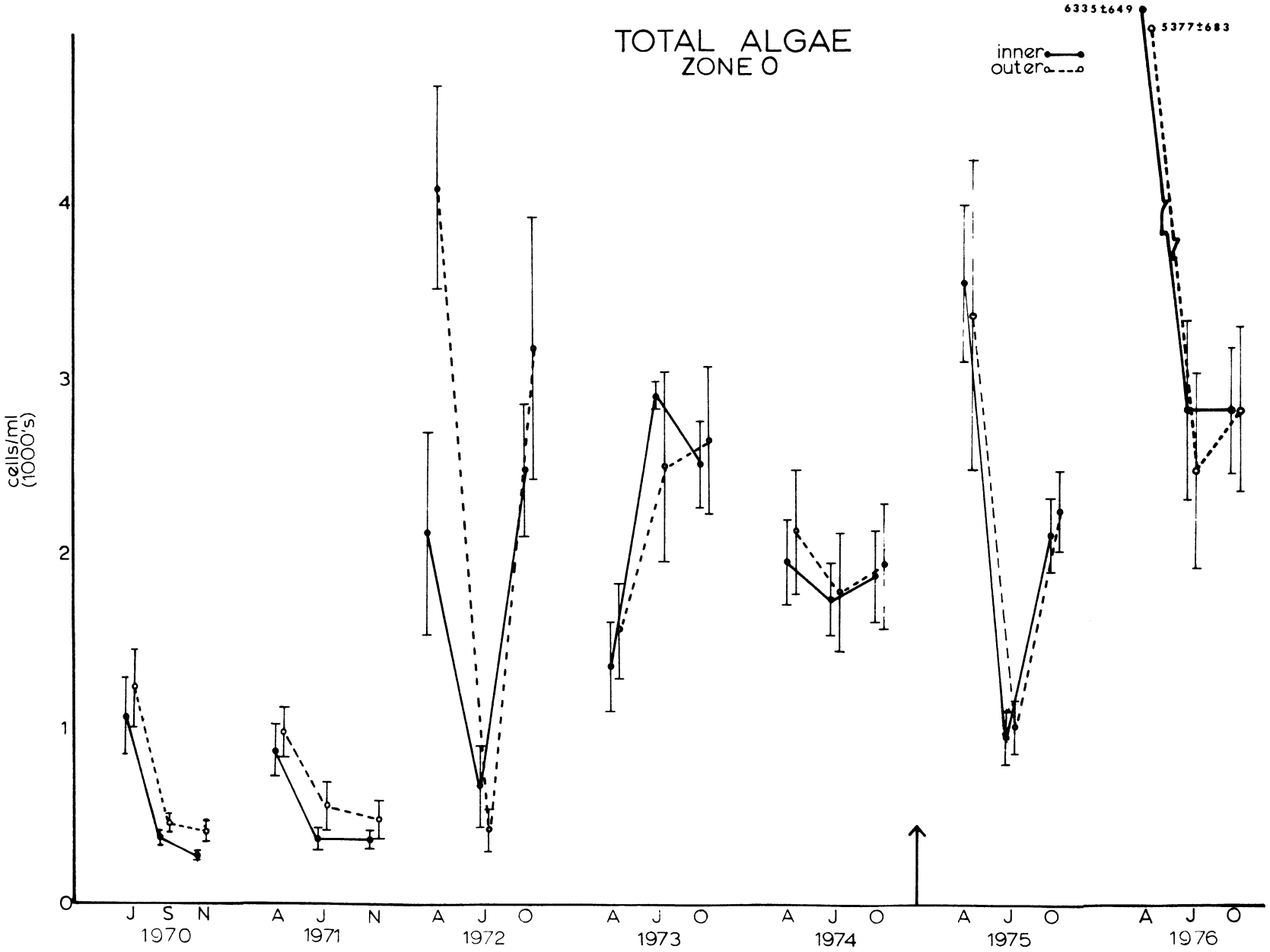

FIG. 6L. Mean abundances of total algae in zone 0 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

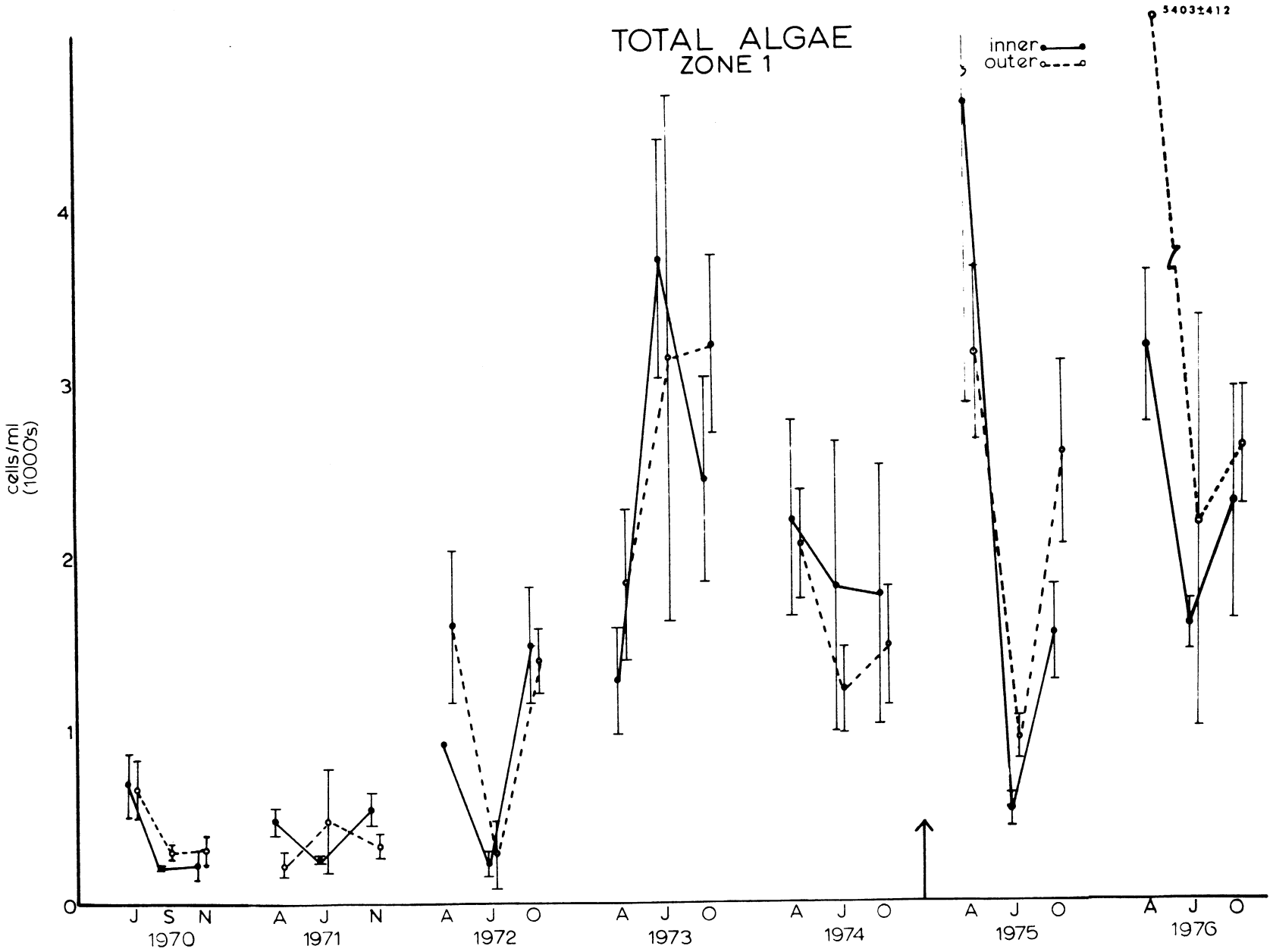

FIG. 6m. Mean abundances of total algae in zone 1 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

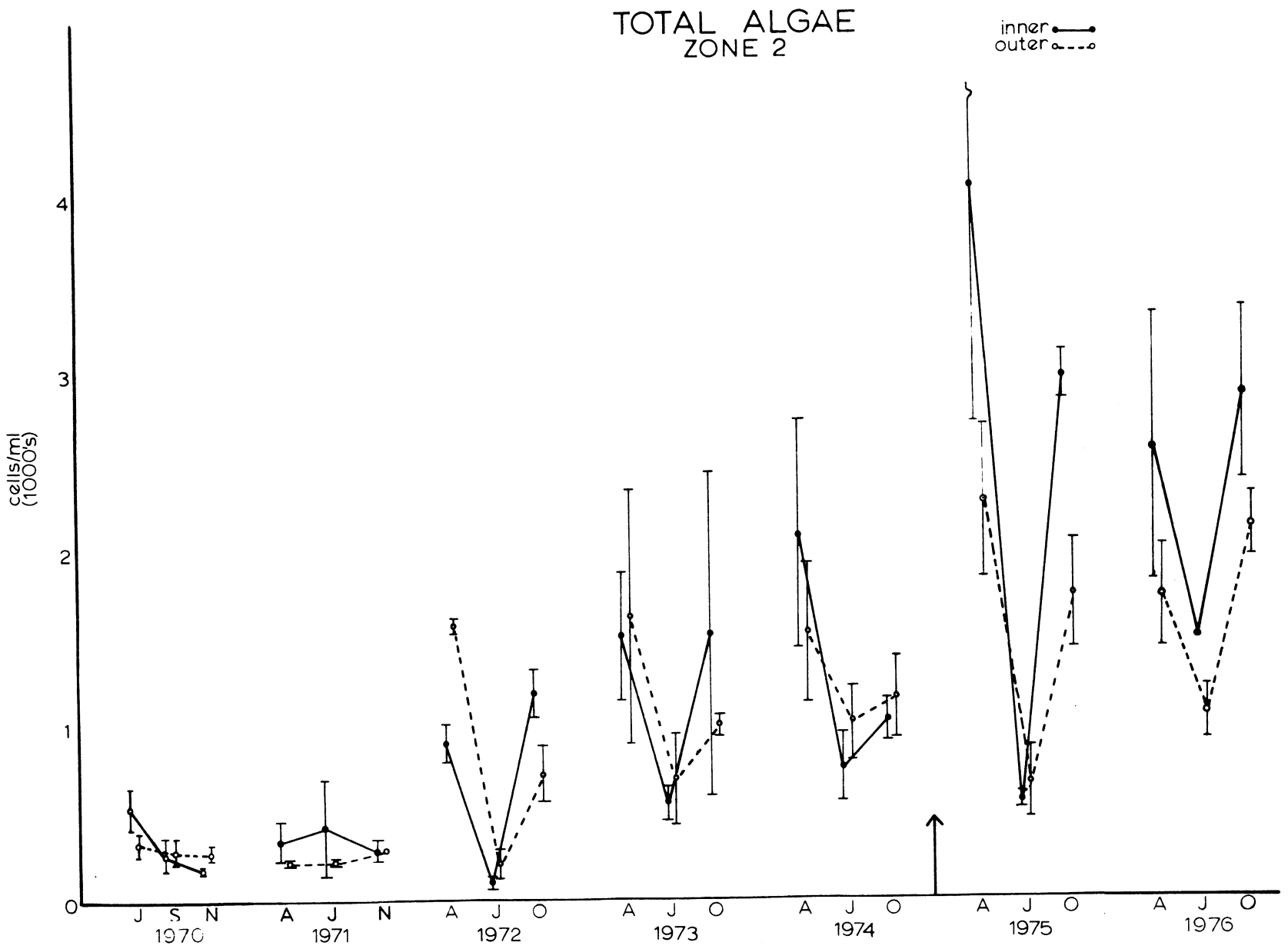

FIG. 6n. Mean abundances of total algae in zone 2 in the spring, summer, and fall seasonal surveys of 1970 - 1976. The vertical bars show the standard error. See Table 7 for sample sizes.

the three depth zones showed reasonably good parallelism, indicating that in general there were similar directions of abundance changes in the inner and outer station groups. Perhaps the most outstanding features of these three figures are general trends toward increasing numbers of phytoplankton algae since 1971, somewhat erratic in zones 0 and 1 but quite clear and steady in zone 2. Similar trends were noted in the graphs for flagellates (Fig. 6g).

In zone 0 operational 1975 was characterized by high April levels of total algae in both inner and outer station groups, by lowered July values in both sets of stations, and by moderately increased numbers in October in both station sets; in all three seasons the abundance levels were within ranges seen in preoperational years. In April of 1976 both inner and outer stations of zone 0 showed the highest mean populations yet observed (6335 $\pm$ 649 cells/ml at the inner stations and 5377 $\pm$ 683 at the outer stations), while July and October abundances were very similar to those observed in these months in 1973. The high April values are not attributed to plant operation effects, for they occurred well away from the plant as well as close to it.

Zone 1 in 1975 showed high levels of total algae abundance in both station sets in April, reduced levels in July at both inner and outer stations, and moderate increases in both sets of stations in October. Considering the uncertainty (standard error) of the April high mean value in the inner stations, there is probably no significant difference between inner and outer station means in that month, and the levels in the three seasons of 1975 may be considered to be in the ranges found in preoperational years. Zone 1 in 1976 showed, in both station sets, highest values in April, reduced abundances in July, and modest recovery in levels in October. Abundance at the outer stations in April was much larger than at the inner stations. This might be due to some effect of plant operation, but there is also the

possibility that a water mass high in total algae protruded from the outer stations of zone 0 to the outer stations of zone 1. Perhaps more worthy of attention is the fact that in July and October of both 1974 and 1976 the inner station group showed lower levels of total algae than did the outer; this is a condition not observed in this zone in any preoperational year, and will be watched for as a possible plant effect in subsequent years.

Total algae in zone 2 showed, in both station groups, the expected pattern of high levels in April, reduced levels in July, and recovering levels in October. April 1975 exhibited in the inner and outer stations the highest mean levels of abundance yet seen in this month.

Abundances in July 1975 were very similar to those of July 1973 in both station sets. October 1975 abundances in both inner and outer stations were higher than previously found in these stations in this month in this zone. The 1976 curves for inner and outer stations of zone 2 showed almost perfect parallelism, with the inner stations having greater abundances than the outer in each survey. July 1976 abundance levels in the inner stations were the highest so far observed in July in zone 2. October values at the outer stations were the highest yet found in this month in this zone. October inner station abundance was not as great as in October 1975.

Except for April 1975, abundance values in zone 1 were greatest in the outer station group in both 1975 and 1976. Except for July 1974, abundance values in zone 2 were greatest in the inner stations in both 1975 and 1976. With the plant's discharge plume in zone 1 all or most of the time, it is unrealistic to attribute that zone's higher abundances in the outer stations to plant plume effects. Conversely, with the plant's plume in zone 2 little if any of the time, it is unrealistic to attribute to plant effects the

generally higher values in the inner stations of zone 2.

If plant operation results in heat-stimulation of phytoplankton reproduction, as has been postulated, and with the plant's plume in zone 1 most or all of the time, the highest phytoplankton abundances in 1975 and 1976 should have been in the inner station group. However, in 5 of the 6 surveys of these years the highest abundances were in the outer stations which the plume is not expected to reach.

If plant operation results in phytoplankton inhibition in the inner stations of zone 1, then inhibition there should have been less in 1975 when the plant was in the testing and power ascension phase. Instead, the three-season abundance levels in the inner stations of zone 1 were on the whole higher in 1976 when the plant operated at higher power levels and more consistently than in 1975.

In the time sequences of phytoplankton abundances there is no convincing evidence that Cook Plant operation has affected the local community; the changes observed appear to be expressions of progressive eutrophication, instead.

Inner-Outer Statistical Comparisons: Phytoplankton Abundances

As a first statistical test for plant-caused differences between preoperational and operational years, it was decided to compare the seasonal mean values of total algal abundances at the inner and outer station groups in the three field seasons of each year. The concept behind this approach was that if plant-caused effects on the phytoplankton were present they could be expected to show as significant differences between abundances at the inner (plant effected) stations and the outer (control) stations. Corollary

to this was the possibility that plant effects might differently affect the phytoplankton of shallow and deeper waters, and show as significant differences between inner and outer stations in one depth zone but not in the other.

For these tests spring was defined as March, April, and May; summer as June, July and August; and fall as September, October, and November. For each season all available abundances of total algae were averaged to give a seasonal mean abundance at inner and outer stations of each depth zone and comparisons were made between inner and outer mean abundances. It was considered that lake-caused abundance changes would similarly affect both the inner and outer station groups of each zone in each season of each year, while plant operation effects could be expected to cause differences between the groups in the same season of the same year.

The method of comparison in each season of each year was the two-sample t-test. Table 8 gives for each year, season, and station group the means, variance, number of observations, and t-test of significance in each depth zone.

In only one season was there a significant difference (at the .05 level) between the means of the inner and outer stations: in the spring of 1972 the outer stations in each depth zone had more cells per ml than did the inner stations. No explanation for the differences can be given.

In the field seasons of the operational years 1975 and 1976 there were no significant differences in total phytoplankton abundances between the inner and outer station groups of either depth zone, indicating no effect of the plant's operations in those years.

Table 8. Total algae (cells/ml) at inner (treatment) and outer (control) station groups in shallow Zone 0 and deep Zone 2 by years and field seasons from summer 1970 through fall 1976. In each season in each zone the mean count of total cells/ml at inner stations near the plant is compared to its value at outer stations away from the plant, using a two-sample t-test. Symbols used: n.s. = no significant difference between the two station groups; * = significance at the .05 level; ** = significance at the .01 level; N = the number of stations in each group for which data were available in that season. No test was made if one of the groups contained only a single observation or one of the group variances was zero.

		Shallow (Zone 0)				Deep (Zone 2)			
Year and Season	Station Group	Means	Variance	N	t-Test of Means Significance Value	Means	Variance	N	t-Test of Means Significance Value
1970									
Summer	Inner	1066.0	508680	11	0.5876 n.s.	531.50	27145	2	0.1419 n.s.
	Outer	1234.4	465060	10		335.75	11378	4	
Fall	Inner	325.85	32204	20	0.1645 n.s.	221.30	7835.4	4	0.2400 n.s.
	Outer	424.45	64573	20		295.06	9921.7	8	
1971									
Spring	Inner	887.10	217350	10	0.6495 n.s.	344.00	24642	2	0.1993 n.s.
	Outer	984.75	172280	8		214.50	4423.0	4	
Summer	Inner	374.80	43485	10	0.2467 n.s.	413.50	112810	2	0.2652 n.s.
	Outer	558.00	190340	10		214.50	4423	4	
Fall	Inner	356.50	23437	6	0.3472 n.s.	293.50	9384.5	2	---
	Outer	480.33	69905	6		282.00	---	1	
1972									
Spring	Inner	2131.7	2301400	7	0.0338 *	897.00	20808	2	0.0245 *
	Outer	4102.5	136630	4		1556.0	1250	2	
Summer	Inner	673.25	405360	8	0.3525 n.s.	97.50	2244.5	2	0.3506 n.s.
	Outer	434.11	138560	9		214.25	20987	4	
Fall	Inner	2498.8	1121200	8	0.4566 n.s.	1166.0	32800	2	0.1547 n.s.
	Outer	3191.2	5637000	10		713.0	107600	4	
1973									
Spring	Inner	1369.0	513060	8	0.5744 n.s.	1484.5	262810	2	0.9019 n.s.
	Outer	1581.3	576740	8		1616.3	1610300	3	
Summer	Inner	2914.3	3962000	7	0.6672 n.s.	549.50	14281	2	0.7497 n.s.
	Outer	2517.6	2650200	9		648.00	270580	4	
Fall	Inner	2527.6	412210	7	0.7835 n.s.	1511.5	1709400	2	0.3999 n.s.
	Outer	2662.6	1203400	7		974.0	10095	4	
1974									
Spring	Inner	1997.4	1000400	13	0.8263 n.s.	2064.5	856740	2	0.4824 n.s.
	Outer	2088.5	1104100	12		1508.8	632000	4	
Summer	Inner	1703.5	792310	19	0.4271 n.s.	781.50	74113	2	0.5338 n.s.
	Outer	1432.6	996180	13		1001.0	160520	4	
Fall	Inner	1757.4	742280	15	0.8008 n.s.	1014.5	27613	2	0.7451 n.s.
	Outer	1654.7	1510700	12		1132.5	194760	4	

Table 8. continued.

Year and Season	Station Group	Shallow (Zone 0) Means	Variance	N	t-Test of Means Significance Value	Deep (Zone 2) Means	Variance	N	t-Test of Means Significance Value
PLANT STARTUP WAS IN FEBRUARY 1975									
1975									
Spring	Inner	2940.1	2974800	16	0.8617 n.s.	4026.5	3561000	2	0.1618 n.s.
	Outer	3085.0	6941600	12		2244.8	734840	4	
Summer	Inner	926.35	189070	20	0.1856 n.s.	541.50	2520.5	2	0.7376 n.s.
	Outer	1134.6	182460	13		653.25	171240	4	
Fall	Inner	2010.3	595370	16	0.4549 n.s.	2951.0	41472	2	0.0603 n.s.
	Outer	2218.0	402860	12		1719.0	386620	4	
1976									
Spring	Inner	6787.5	5286300	15	0.3942 n.s.	2546.0	1145800	2	0.2571 n.s.
	Outer	5961.2	7036900	12		1709.4	331220	4	
Summer	Inner	3041.8	3135800	15	0.4595 n.s.	1475.6	88.445	2	0.1436 n.s.
	Outer	2543.5	2672200	12		1051.4	1418.0	4	
Fall	Inner	2938.2	1412400	16	0.7654 n.s.	2857.6	480100	2	0.1763 n.s.
	Outer	2790.1	1984700	12		2100.2	92143	3	

Inner-Outer Graphical Comparisons: Diversity Indices

Cook Plant species diversity data for the years 1971 through 1975 have been presented and discussed by Ayers, Southwick, and Robinson (1977) and tabulated data in that report are for the most part not repeated here. This section is concerned with extending the previous discussions, tabulations, and figures to include the major surveys carried out in 1970 and in 1976.

As was done in the report cited above, the diversity index data for 1970 and 1976 have been stratified by three depth zones and by inner treatment stations (near the plant) and outer control or reference stations groups.

The diversity index used is, as previously, that of Wilhm and Dorris (1968):

$$\bar{d} = - \sum_{i=1}^{S} (n_i/n) \log_2 (n_i/n)$$

where S is the number of species, n is the total number of phytoplankton in cells/ml, n_i is the number of phytoplankton of the i^{th} species.

Mean diversity indices and associated standard errors for each depth-zone-station-group combination in 1970 and 1976 have been computed and are presented in Table 9. In Figure 7 the surveys of 1970 and 1976 have been added at the ends of the time plots of diversity indices and standard errors which were presented by Ayers, Southwick, and Robinson (op. cit.).

In Figure 7 the annual curves of mean diversity indices generally show substantial degrees of parallelism between inner and outer station groups, though parallelism was poor in all zones in 1971 and 1972, in zone 0 in 1974, and in zone 1 in 1970 and 1974. Parallelism between the curves for inner (treatment) and outer (control) stations indicates that changes in diversity from season to season were the same in both sets of stations. Parallelism of the curves for inner and outer station groups in the operational years 1975

TABLE 9. Means, standard errors, and numbers of observations of in-lake phytoplankton diversity indices by seasons, depth zones, and inner or outer station groups in Cook Plant major surveys in preoperational 1970 and operational 1976 (the intervening years are reported by Ayers, Southwick, and Robinson 1977). The diversity index used is that of Wilhm and Dorris (1968) based on log 2. Standard errors are computed only when the number of observations (N) = 2 or more.

1970

	10 July	25 September	12 November
Zone 0, Inner			
Mean	3.62	3.58	2.70
S. E.	0.11	0.20	0.11
N	11	10	9
Outer			
Mean	3.75	3.63	2.93
S. E.	0.08	0.13	0.11
N	9	10	10
Zone 1, Inner			
Mean	2.33	3.12	2.83
S. E.	0.61	0.31	0.18
N	3	3	3
Outer			
Mean	3.54	3.22	2.79
S. E.	0.15	0.09	0.23
N	4	4	4
Zone 2, Inner			
Mean	2.68	3.61	2.40
S. E.	0.81	0.19	0.16
N	2	2	2
Outer			
Mean	3.00	3.56	2.84
S. E.	0.11	0.14	0.13
N	4	4	4

1976

	14 April	14 July	13 October
Zone 0, Inner			
Mean	4.32	4.40	4.76
S. E.	0.09	0.08	0.06
N	12	12	12
Outer			
Mean	4.32	4.19	4.67
S. E.	0.06	0.15	0.08
N	10	10	10

TABLE 9 continued.

1976	14 April	14 July	13 October
Zone 1, Inner			
Mean	4.26	3.68	4.43
S. E.	0.04	0.06	0.20
N	3	3	3
Outer			
Mean	4.32	3.07	4.28
S. E.	0.08	0.63	0.10
N	4	4	4
Zone 2, Inner			
Mean	4.41	3.08	4.22
S. E.	0.18	0.15	0.40
N	2	2	2
Outer			
Mean	4.11	3.23	3.88
S. E.	0.14	0.11	0.21
N	4	4	3

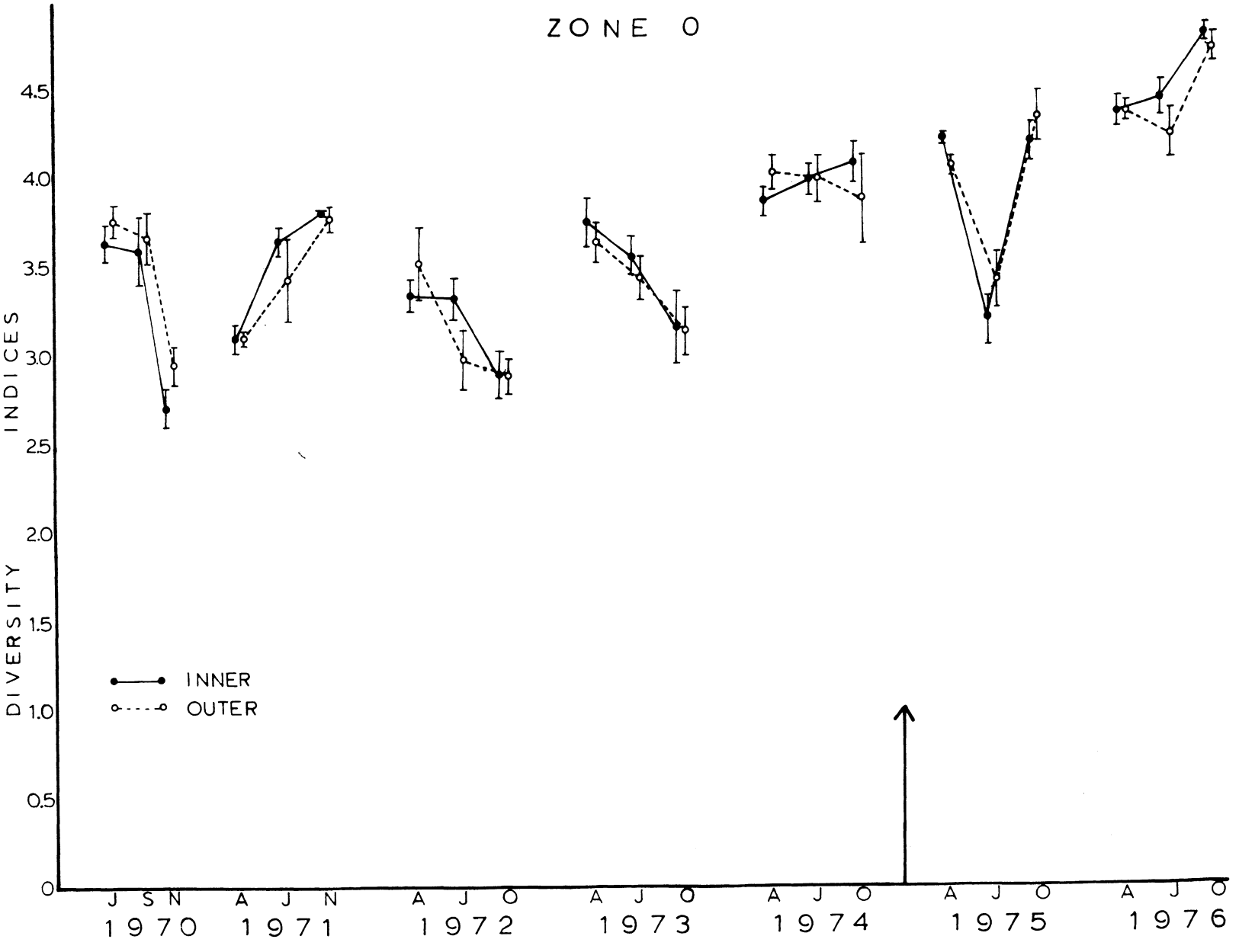

FIG. 7a. Mean diversity indices in zone 0 by spring, summer, and fall seasons and inner and outer station groups in 1970 - 1976. The vertical bars show the standard errors. See Table 9 for sample sizes.

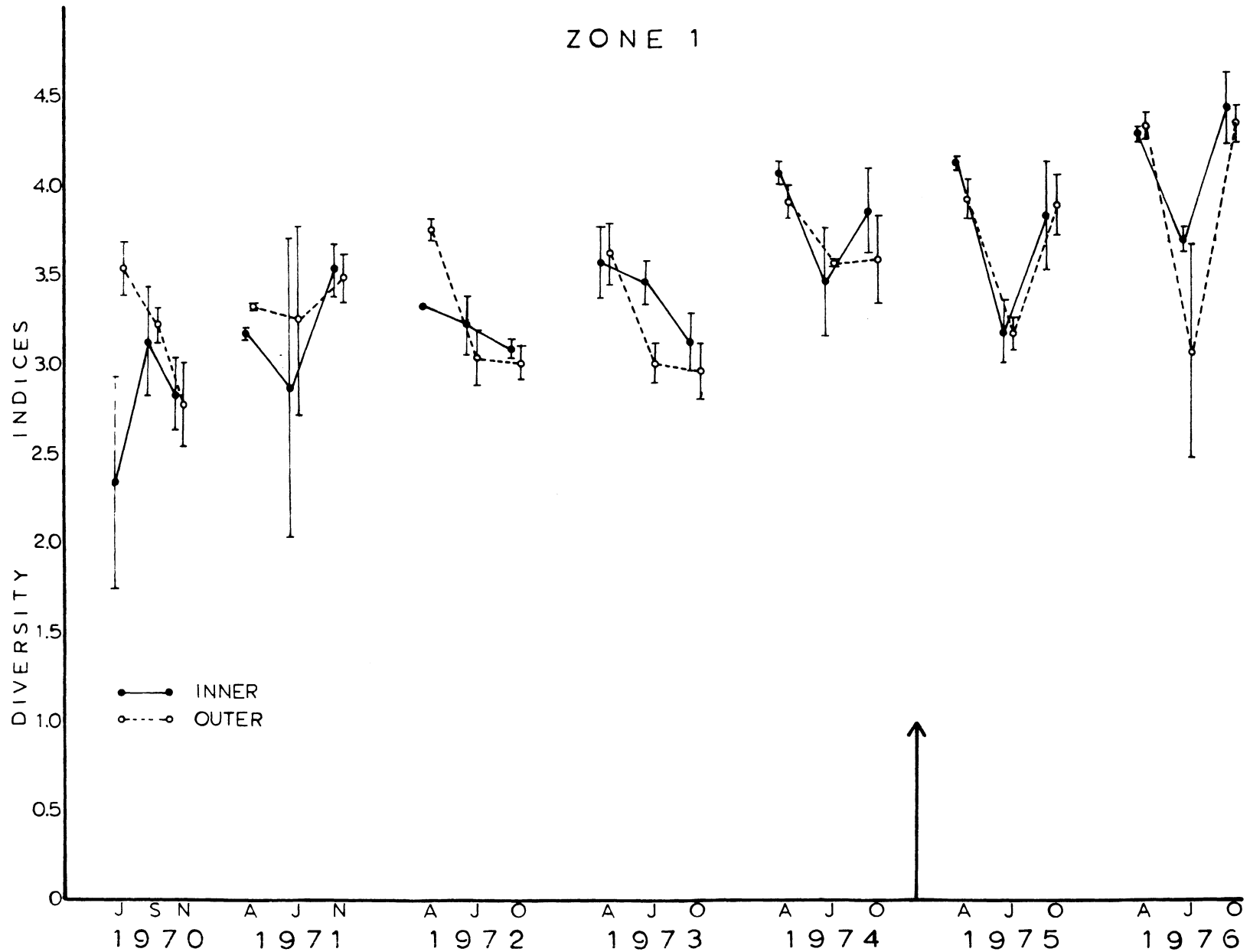

FIG. 7b. Mean diversity indices in zone 1 by spring, summer, and fall seasons and inner and outer station groups in 1970 - 1976. The vertical bars show the standard errors. See Table 9 for sample sizes.

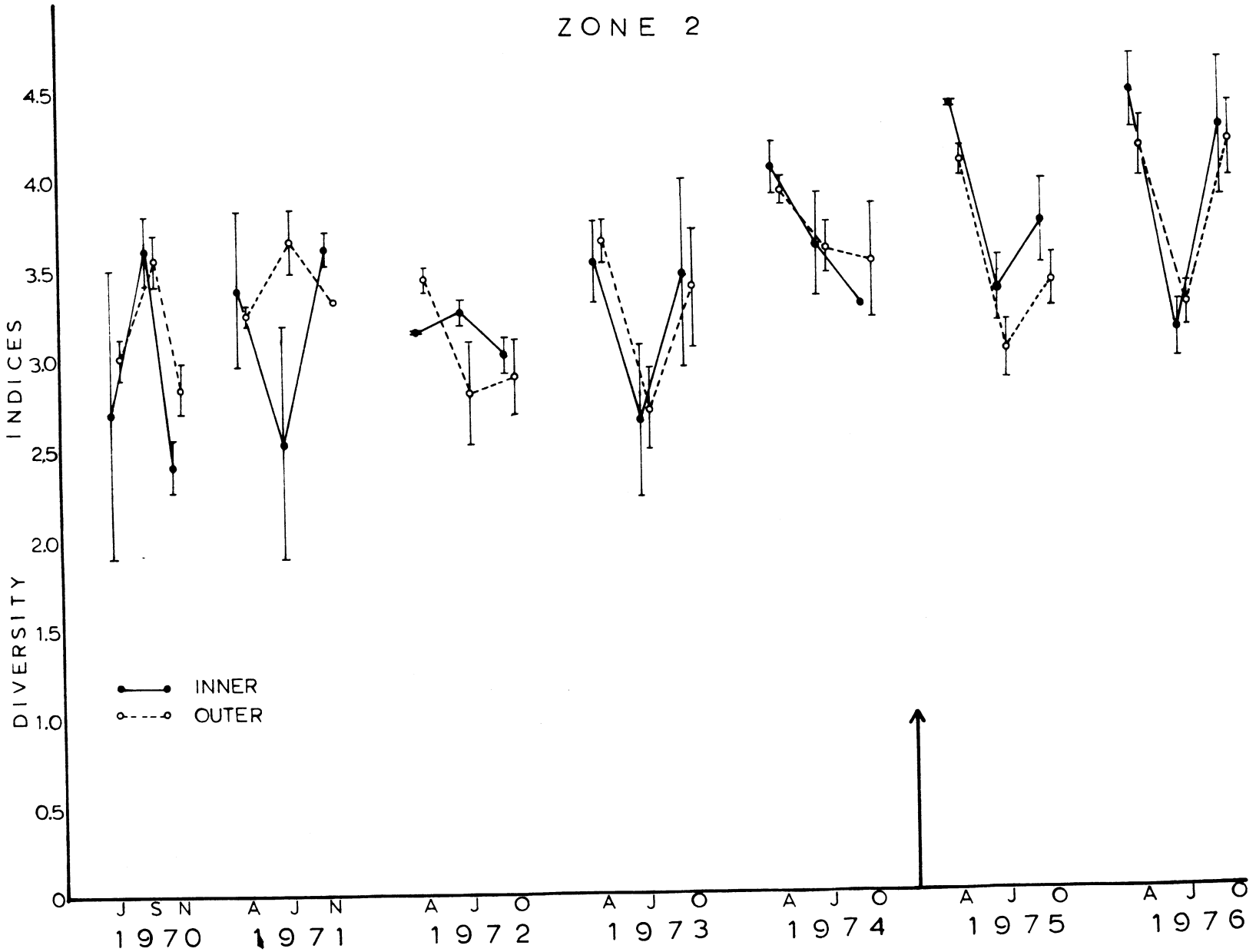

FIG. 7c. Mean diversity indices in zone 2 by spring, summer, and fall seasons and inner and outer station groups in 1970 - 1976. The vertical bars show the standard errors. See Table 9 for sample sizes.

and 1976 has been as good as or better than in preoperational years.

The placement of the annual curves on the graphs shows in all zones a trend toward increasing diversity since 1972. Stoermer and Yang (1969, p. 212) have pointed out that there is in Lake Michigan a tendency for phytoplankton diversity to increase with increasing eutrophication, rather than to decrease as might be expected on the basis of theory. The upward trends of the diversity curves are compatible with the known increasing eutrophication of the lake.

There is no evidence in the present study of diversity indices that operation of Cook Plant has simplified (lowered the diversity of) the local phytoplankton community in the operational years 1975 and 1976. Instead, the evidence is that the phytoplankton community has in the operational years continued to become more diverse than it was in the earlier preoperational years.

Inner-Outer Graphical Comparisons: Phytoplankton Redundancies

Redundancy values are derived from the diversity index of Wilhm and Dorris (1968):

$$\bar{d} = -\sum_{i=1}^{S} (n_i/n) \log_2 (n_i/n)$$

where S is the number of species, n is the total number of phytoplankton in cells/ml, n_i is the number of phytoplankton of the i^{th} species. Diversity as presented here is not the true diversity since not all forms encountered can be identified to the species level. Therefore, this diversity must be viewed with caution. However, these diversities will be used to illustrate changes occurring within the phytoplankton population from year to year.

Redundancy is a measure of the dominance of one or a few species within a given population. As presented by Wilhm and Dorris (1968) it is:

$$r = \frac{\bar{d}_{max} - \bar{d}}{\bar{d}_{max} - \bar{d}_{min}}$$

where $\bar{d}$ is the observed diversity as calculated above, $\bar{d}_{max}$ is the maximum diversity for a particular community, and $\bar{d}_{min}$ is the minimum possible diversity for a particular community. $\bar{d}_{max}$ is calculated using the following equation:

$$\bar{d}_{max} = (1/n)(\log_2 n! - s \log_2 [n/S]!)$$

and $\bar{d}_{min}$ is calculated using the equation:

$$\bar{d}_{min} = (1/n)(\log_2 n! - s \log_2 [n-(S-1)]!)$$

The values of r range between 0 and 1. An r equal to 0 implies that the species encountered in a community each have the same number of cells. An r equal to 1 implies that one species dominates the community of phytoplankton.

Table 10 gives, for all the Cook Plant major surveys from July 1970 through October 1976, the station values of phytoplankton redundancy.

Table 11 presents the means, standard errors, and numbers of observations of redundancies in Cook Plant major surveys in the years 1970 through 1976 stratified by seasons, depth zones, and inner and outer station groups. The means and standard errors are plotted on a time axis in Figure 8.

The plots in Figure 8 show visual evidence of a trend, beginning in 1973, for redundancies to become somewhat lower since that year. If real, the trend would indicate that there has been a tendency for the species in the community to become more equally abundant in individuals.

Perhaps more important is that after 1972 there has been much better

TABLE 10. Phytoplankton redundancies, method of Wilhm and Dorris (1968), Cook Plant seasonal surveys.

Station	Redundancy	Station	Redundancy	Station	Redundancy	Station	Redundancy
10 JULY 1970							
DC-1	0.276	NDC-1-0	0.118	NDC-4-1	0.425	SDC-1-0	0.280
DC-2	0.229	NDC-1-1	0.601	NDC-4-2	0.461	SDC-1-1	0.240
DC-3	0.283	NDC-1-2	0.285	NDC-4-3	0.446	SDC-1-2	0.315
DC-4	0.551	NDC-1-3	0.217	NDC-4-4	0.270	SDC-1-3	0.227
DC-5	0.181	NDC-2-0	0.296	NDC-7-1	0.322	SDC-2-0	0.301
DC-6	0.317	NDC-2-1	0.144	NDC-7-2	0.348	SDC-2-1	0.242
NDC-.25-1	0.277	NDC-2-2	0.343	NDC-7-3	0.315	SDC-2-2	0.234
NDC-.5-0	0.276	NDC-2-3	0.394	NDC-7-4	0.393	SDC-2-3	0.263
NDC-.5-1	0.298	NDC-2-4	0.216	NDC-7-5	0.244	SDC-2-4	0.380
NDC-.5-2	0.246	NDC-4-0	0.378	SDC-.25-1	0.466	SDC-4-0	0.265
NDC-.5-3	0.296	NDC-4-1	0.297	SDC-.5-0	0.447	SDC-4-2	0.247
NDC-1-0	0.246	NDC-4-2	0.237	SDC-.5-1	0.376	SDC-4-3	0.304
NDC-1-1	0.208	NDC-4-3	0.337	SDC-.5-2	0.412	SDC-4-4	0.273
NDC-1-2	0.650	NDC-4-4	0.383	SDC-.5-3	0.496	SDC-7-1	0.303
NDC-1-3	0.301	NDC-7-1	0.366	SDC-1-0	0.486	SDC-7-2	0.286
NDC-1-4	0.331	NDC-7-2	0.311	SDC-1-1	0.364	SDC-7-3	0.217
NDC-2-0	0.172	NDC-7-3	0.308	SDC-1-2	0.418	SDC-7-4	0.265
NDC-2-1	0.305	NDC-7-4	0.343	SDC-1-3	0.365	SDC-7-5	0.335
NDC-2-2	0.102	NDC-7-5	0.418	SDC-2-0	0.253		
NDC-2-3	0.205	SDC-.25-1	0.256	SDC-2-1	0.437	9 JULY 1971	
NDC-2-4	0.334	SDC-.5-0	0.233	SDC-2-2	0.407		
NDC-4-0	0.202	SDC-.5-1	0.255	SDC-2-3	0.313	DC-2	0.807
NDC-4-2	0.294	SDC-.5-2	0.182	SDC-2-4	0.453	DC-3	0.365
NDC-4-3	0.348	SDC-.5-3	0.184	SDC-4-0	0.416	DC-4	0.682
NDC-4-4	0.182	SDC-1-0	0.299	SDC-4-1	0.397	DC-5	0.578
NDC-7-1	0.336	SDC-1-1	0.0857	SDC-4-2	0.343	DC-6	0.441
NDC-7-2	0.822	SDC-1-2	0.264	SDC-4-3	0.321	NDC-.25-1	0.427
NDC-7-3	0.269	SDC-1-3	0.313	SDC-4-4	0.329	NDC-.5-0	0.239
NDC-7-4	0.313	SDC-2-0	0.124	SDC-7-1	0.258	NDC-.5-1	0.407
NDC-7-5	0.250	SDC-2-1	0.289	SDC-7-2	0.459	NDC-.5-2	0.370
SDC-.25-1	0.428	SDC-2-2	0.295	SDC-7-3	0.500	NDC-.5-3	0.196
SDC-.5-0	0.263	SDC-2-3	0.217	SDC-7-4	0.391	NDC-1-0	0.266
SDC-.5-1	0.255	SDC-2-4	0.253	SDC-7-5	0.338	NDC-1-1	0.310
SDC-.5-2	0.310	SDC-4-0	0.250			NDC-1-2	0.355
SDC-1-0	0.293	SDC-4-1	0.436	15 APRIL 1971		NDC-1-3	0.302
SDC-1-1	0.302	SDC-4-2	0.303			NDC-2-0	0.443
SDC-1-2	0.583	SDC-4-3	0.211	DC-1	0.221	NDC-2-1	0.431
SDC-1-3	0.324	SDC-4-4	0.316	DC-2	0.257	NDC-2-2	0.378
SDC-2-0	0.310	SDC-7-1	0.152	DC-3	0.293	NDC-2-3	0.152
SDC-2-1	0.262	SDC-7-2	0.258	DC-4	0.235	NDC-2-4	0.417
SDC-2-2	0.311	SDC-7-3	0.355	DC-5	0.216	NDC-4-0	0.339
SDC-2-3	0.215	SDC-7-4	0.134	DC-6	0.414	NDC-4-1	0.369
SDC-2-4	0.370	SDC-7-5	0.228	NDC-.25-1	0.218	NDC-4-2	0.393
SDC-4-0	0.262			NDC-.5-0	0.273	NDC-4-3	0.267
SDC-4-1	0.285	12 NOVEMBER 1970		NDC-.5-1	0.257	NDC-4-4	0.240
SDC-4-2	0.356			NDC-.5-2	0.320	NDC-7-1	0.736
SDC-4-3	0.324	DC-2	0.485	NDC-.5-3	0.295	NDC-7-2	0.720
SDC-4-4	0.242	DC-3	0.557	NDC-1-0	0.274	NDC-7-3	0.721
SDC-7-1	0.263	DC-4	0.499	NDC-1-2	0.217	NDC-7-4	0.247
SDC-7-2	0.917	DC-5	0.499	NDC-1-3	0.233	NDC-7-5	0.414
SDC-7-3	0.332	DC-6	0.297	NDC-2-0	0.187	SDC-.25-1	0.236
SDC-7-4	0.331	NDC-.25-1	0.553	NDC-2-1	0.266	SDC-.5-0	0.230
SDC-7-5	0.339	NDC-.5-0	0.504	NDC-2-3	0.221	SDC-.5-1	0.169
		NDC-.5-1	0.454	NDC-2-4	0.282	SDC-.5-2	0.240
25 SEPTEMBER 1970		NDC-.5-2	0.497	NDC-4-0	0.290	SDC-.5-3	0.184
		NDC-.5-3	0.450	NDC-4-1	0.244	SDC-1-0	0.267
DC-2	0.502	NDC-1-0	0.217	NDC-4-3	0.269	SDC-1-1	0.192
DC-3	0.250	NDC-1-1	0.527	NDC-4-4	0.380	SDC-1-2	0.266
DC-4	0.163	NDC-1-2	0.346	NDC-7-2	0.310	SDC-1-3	0.107
DC-5	0.191	NDC-1-3	0.465	NDC-7-4	0.275	SDC-2-0	0.200
DC-6	0.0713	NDC-2-0	0.495	NDC-7-5	0.183	SDC-2-1	0.192
NDC-.25-1	0.0971	NDC-2-1	0.376	SDC-.25-1	0.317	SDC-2-2	0.227
NDC-.5-0	0.219	NDC-2-2	0.355	SDC-.5-0	0.225	SDC-2-3	0.295
NDC-.5-1	0.243	NDC-2-3	0.400	SDC-.5-1	0.275	SDC-2-4	0.112
NDC-.5-2	0.372	NDC-2-4	0.429	SDC-.5-2	0.328	SDC-4-0	0.259
NDC-.5-3	0.185	NDC-4-0	0.266	SDC-.5-3	0.287	SDC-4-1	0.222

TABLE 10. continued.

Station	Redundancy
9 JULY 1971 cont.	
SDC-4-2	0.150
SDC-4-3	0.238
SDC-4-4	0.175
SDC-7-1	0.382
SDC-7-2	0.176
SDC-7-3	0.194
SDC-7-4	0.143
SDC-7-5	0.233
8 NOVEMBER 1971	
DC-3	0.338
DC-5	0.242
DC-6	0.320
NDC-.25-1	0.285
NDC-.5-1	0.132
NDC-.5-2	0.233
NDC-.5-3	0.301
NDC-1-1	0.230
NDC-1-2	0.221
NDC-1-3	0.251
NDC-2-1	0.216
NDC-2-2	0.242
NDC-2-3	0.293
NDC-2-4	0.366
NDC-4-0	0.149
NDC-4-1	0.160
NDC-4-2	0.196
NDC-4-3	0.351
NDC-4-4	0.413
SDC-.25-1	0.170
SDC-.5-2	0.280
SDC-1-1	0.302
SDC-1-3	0.303
SDC-2-0	0.190
SDC-2-1	0.231
SDC-2-2	0.233
SDC-2-3	0.303
SDC-2-4	0.398
SDC-4-1	0.333
SDC-4-4	0.278
12 APRIL 1972	
DC-1	0.286
DC-2	0.374
DC-3	0.425
DC-4	0.443
DC-5	0.394
DC-6	0.397
NDC-.25-1	0.237
NDC-.5-0	0.357
NDC-.5-1	0.347
NDC-.5-2	0.342
NDC-.5-3	0.343
NDC-1-0	0.415
NDC-1-1	0.325
NDC-1-3	0.311
NDC-2-0	0.339
NDC-2-2	0.250
NDC-2-3	0.325
NDC-2-4	0.234
NDC-4-0	0.382
NDC-4-1	0.304
NDC-4-2	0.411
NDC-4-3	0.294
NDC-4-4	0.363
NDC-7-1	0.316
NDC-7-2	0.258
NDC-7-3	0.286
NDC-7-5	0.394
Preservation failures	
SDC-.5-1	0.379
SDC-7-4	0.170
16 JULY 1972	
DC-1	0.198
DC-2	0.343
DC-3	0.362
DC-4	0.197
DC-5	0.341
DC-6	0.388
NDC-.5-0	0.293
NDC-.5-2	0.153
NDC-1-0	0.304
NDC-1-1	0.349
NDC-1-2	0.463
NDC-2-0	0.358
NDC-2-1	0.298
NDC-2-3	0.196
NDC-4-0	0.276
NDC-4-1	0.364
NDC-4-3	0.482
NDC-4-4	0.382
NDC-7-1	0.186
NDC-7-3	0.460
NDC-7-5	0.433
SDC-.5-2	0.406
SDC-1-0	0.308
SDC-1-1	0.267
SDC-1-2	0.270
SDC-2-0	0.278
SDC-2-1	0.318
SDC-2-3	0.251
SDC-4-0	0.342
SDC-4-1	0.431
SDC-4-3	0.153
SDC-4-4	0.185
SDC-7-2	0.235
SDC-7-3	0.156
SDC-7-5	0.159
15 OCTOBER 1972	
DC-2	0.450
DC-3	0.464
DC-4	0.476
DC-5	0.491
DC-6	0.566
NDC-.5-0	0.431
NDC-.5-2	0.492
NDC-1-0	0.401
NDC-1-1	0.576
NDC-1-2	0.438
NDC-2-0	0.413
NDC-2-1	0.570
NDC-2-3	0.479
NDC-4-0	0.503
NDC-4-1	0.480
NDC-4-3	0.393
NDC-4-4	0.577
NDC-7-1	0.544
NDC-7-3	0.562
NDC-7-5	0.452
SDC-.5-0	0.389
SDC-.5-2	0.489
SDC-1-0	0.598
SDC-1-1	0.550
SDC-1-2	0.507
SDC-2-0	0.496
SDC-2-1	0.510
SDC-2-3	0.488
SDC-4-0	0.369
SDC-4-1	0.565
SDC-4-3	0.440
SDC-4-4	0.576
SDC-7-1	0.540
SDC-7-3	0.503
SDC-7-5	0.587
25 APRIL 1973	
DC-2	0.419
DC-3	0.354
DC-4	0.360
DC-5	0.446
DC-6	0.419
NDC-.5-0	0.298
NDC-.5-2	0.349
NDC-1-0	0.276
NDC-1-1	0.362
NDC-1-2	0.327
NDC-2-0	0.347
NDC-2-1	0.310
NDC-2-3	0.416
NDC-4-0	0.339
NDC-4-1	0.307
NDC-4-4	0.368
NDC-7-3	0.342
NDC-7-5	0.342
SDC-.5-0	0.157
SDC-.5-2	0.339
SDC-1-0	0.303
SDC-1-1	0.355
SDC-1-2	0.372
SDC-2-0	0.314
SDC-2-1	0.321
SDC-2-3	0.307
SDC-4-1	0.344
SDC-4-3	0.337
SDC-4-4	0.272
SDC-7-1	0.219
SDC-7-3	0.329
SDC-7-5	0.376
19 JULY 1973	
DC-2	0.435
DC-3	0.539
DC-4	0.339
DC-5	0.370
DC-6	0.455
NDC-.5-2	0.389
NDC-1-0	0.350
NDC-1-1	0.462
NDC-1-2	0.339
NDC-2-0	0.404
NDC-2-1	0.470
NDC-2-3	0.288
NDC-4-0	0.463
NDC-4-1	0.182
NDC-4-3	0.309
NDC-4-4	0.553
NDC-7-1	0.443
NDC-7-3	0.413
NDC-7-5	0.341
SDC-.5-0	0.292
SDC-.5-2	0.446
SDC-1-0	0.227
SDC-1-1	0.403
SDC-1-2	0.418
SDC-2-0	0.220
SDC-2-1	0.396
SDC-2-3	0.441
SDC-4-1	0.420
SDC-4-3	0.554
SDC-4-4	0.582
SDC-7-1	0.442
SDC-7-3	0.475
SDC-7-5	0.451
23 OCTOBER 1973	
DC-2	0.409
DC-3	0.486
DC-4	0.336
DC-5	0.456
DC-6	0.272
NDC-.5-0	0.472
NDC-.5-2	0.410
NDC-1-0	0.520
NDC-1-1	0.563
NDC-1-2	0.457
NDC-2-0	0.359
NDC-2-1	0.476
NDC-2-3	0.501
NDC-4-3	0.345
NDC-4-4	0.468
NDC-7-1	0.509
NDC-7-3	0.514
NDC-7-5	0.492
SDC-.5-0	0.474
SDC-.5-2	0.306
SDC-1-0	0.499
SDC-1-2	0.510
SDC-2-1	0.411
SDC-2-3	0.454
SDC-4-0	0.462
SDC-4-1	0.465
SDC-4-3	0.408
SDC-4-4	0.296
SDC-7-1	0.431
SDC-7-3	0.469
SDC-7-5	0.309
20 APRIL 1974	
DC-1	0.330
DC-2	0.255
DC-3	0.313
DC-4	0.225
DC-5	0.202
DC-6	0.181
NDC-.5-0	0.273

TABLE 10. continued.

Station	Redundancy
20 APRIL 1974 cont.	
NDC-.5-2	0.310
NDC-1-0	0.249
NDC-1-1	0.268
NDC-1-2	0.254
NDC-2-0	0.259
NDC-2-1	0.290
NDC-2-3	0.327
NDC-4-0	0.263
NDC-4-1	0.245
NDC-4-3	0.305
NDC-4-4	0.203
NDC-7-1	0.224
NDC-7-3	0.339
NDC-7-5	0.223
SDC-.5-0	0.304
SDC-.5-2	0.341
SDC-1-0	0.263
SDC-1-1	0.277
SDC-1-2	0.294
SDC-2-0	0.269
SDC-2-1	0.317
SDC-2-3	0.316
SDC-4-0	0.399
SDC-4-1	0.279
SDC-4-3	0.265
SDC-4-4	0.273
SDC-7-1	0.330
SDC-7-3	0.243
SDC-7-5	0.254
11 JULY 1974	
DC-0	0.257
DC-1	0.309
DC-2	0.372
DC-3	0.390
DC-4	0.283
DC-5	0.305
DC-6	0.256
NDC-.5-0	0.313
NDC-.5-1	0.259
NDC-.5-2	0.282
NDC-1-0	0.289
NDC-1-1	0.243
NDC-1-2	0.325
NDC-2-0	0.300
NDC-2-1	0.217
NDC-2-3	0.359
NDC-4-0	0.275
NDC-4-1	0.304
NDC-4-3	0.285
NDC-4-4	0.269
NDC-7-1	0.308
NDC-7-3	0.371
NDC-7-5	0.314
SDC-.5-1	0.288
SDC-.5-2	0.227
SDC-1-0	0.344
SDC-1-1	0.329
SDC-1-2	0.429
SDC-2-0	0.397
SDC-2-1	0.306
SDC-2-3	0.347
SDC-4-1	0.312
SDC-4-3	0.348
SDC-4-4	0.414
SDC-7-1	0.339
SDC-7-3	0.345
SDC-7-5	0.320
9 OCTOBER 1974	
DC-0	0.228
DC-1	0.224
DC-2	0.266
DC-3	0.447
DC-4	0.445
DC-5	0.405
DC-6	0.519
NDC-.5-0	0.377
NDC-.5-1	0.332
NDC-.5-2	0.369
NDC-1-0	0.358
NDC-1-1	0.464
NDC-1-2	0.359
NDC-2-0	0.302
NDC-2-1	0.367
NDC-2-3	0.337
NDC-4-0	0.234
NDC-4-1	0.695
NDC-4-3	0.210
NDC-4-4	0.515
NDC-7-1	0.290
NDC-7-3	0.459
NDC-7-5	0.469
SDC-.5-0	0.313
SDC-.5-1	0.256
SDC-.5-2	0.290
SDC-1-0	0.326
SDC-1-1	0.418
SDC-1-2	0.414
SDC-2-0	0.284
SDC-2-1	0.328
SDC-2-3	0.318
SDC-4-0	0.228
SDC-4-1	0.320
SDC-4-3	0.338
SDC-4-4	0.393
SDC-7-1	0.393
SDC-7-3	0.448
SDC-7-5	0.502
17 APRIL 1975	
DC-0	0.223
DC-1	0.258
DC-2	0.236
DC-3	0.224
DC-4	0.252
DC-5	0.254
DC-6	0.269
NDC-.5-0	0.226
NDC-.5-1	0.233
NDC-.5-2	0.267
NDC-1-0	0.221
NDC-1-1	0.194
NDC-1-2	0.271
NDC-2-0	0.204
NDC-2-1	0.281
NDC-2-3	0.267
NDC-4-0	0.268
NDC-4-1	0.182
NDC-4-3	0.272
NDC-4-4	0.182
NDC-7-1	0.233
NDC-7-3	0.244
NDC-7-5	0.238
SDC-.5-0	0.290
SDC-.5-1	0.266
SDC-.5-2	0.536
SDC-1-0	0.304
SDC-1-1	0.249
SDC-1-2	0.235
SDC-2-0	0.242
SDC-2-1	0.289
SDC-2-3	0.272
SDC-4-0	0.216
SDC-4-1	0.239
SDC-4-3	0.248
SDC-4-4	0.259
SDC-7-1	0.227
SDC-7-3	0.278
SDC-7-5	0.255
17 JULY 1975	
DC-0	0.509
DC-1	0.433
DC-2	0.471
DC-3	0.470
DC-4	0.356
DC-5	0.412
DC-6	0.349
NDC-.5-0	0.500
NDC-.5-1	0.478
NDC-.5-2	0.339
NDC-1-0	0.428
NDC-1-1	0.396
NDC-1-2	0.337
NDC-2-0	0.387
NDC-2-1	0.446
NDC-2-3	0.359
NDC-4-0	0.336
NDC-4-1	0.350
NDC-4-3	0.382
NDC-4-4	0.324
NDC-7-3	0.369
NDC-7-5	0.414
SDC-.5-0	0.549
SDC-.5-1	0.433
SDC-.5-2	0.337
SDC-1-0	0.351
SDC-1-1	0.377
SDC-1-2	0.271
SDC-2-0	0.384
SDC-2-1	0.294
SDC-2-3	0.283
SDC-4-0	0.468
SDC-4-1	0.439
SDC-4-3	0.337
SDC-4-4	0.322
SDC-7-1	0.514
SDC-7-3	0.377
SDC-7-5	0.456
17 OCTOBER 1975	
DC-0	0.363
DC-1	0.270
DC-2	0.344
DC-3	0.403
DC-4	0.449
DC-5	0.393
NDC-.5-0	0.399
NDC-.5-1	0.353
NDC-.5-2	0.458
NDC-1-0	0.340
NDC-1-1	0.233
NDC-1-2	0.514
NDC-2-0	0.456
NDC-2-1	0.502
NDC-2-3	0.406
NDC-4-0	0.363
NDC-4-1	0.366
NDC-4-3	0.403
NDC-7-1	0.236
NDC-7-3	0.479
NDC-7-5	0.494
SDC-.5-0	0.309
SDC-.5-1	0.437
SDC-.5-2	0.386
SDC-1-0	0.340
SDC-1-1	0.386
SDC-1-2	0.344
SDC-2-0	0.305
SDC-2-1	0.283
SDC-2-3	0.302
SDC-4-0	0.310
SDC-4-1	0.311
SDC-4-3	0.377
SDC-7-1	0.338
SDC-7-3	0.298
SDC-7-5	0.362
14 APRIL 1976	
DC-0	0.299
DC-1	0.294
DC-2	0.263
DC-3	0.207
DC-4	0.251
DC-5	0.274
DC-6	0.454
NDC-.5-0	0.286
NDC-.5-1	0.294
NDC-.5-2	0.290
NDC-1-0	0.327
NDC-1-1	0.229
NDC-1-2	0.216
NDC-2-0	0.232
NDC-2-1	0.270
NDC-2-3	0.283
NDC-4-0	0.241
NDC-4-1	0.252
NDC-4-3	0.304
NDC-4-4	0.481
NDC-7-1	0.309
NDC-7-3	0.282
NDC-7-5	0.239
SDC-.5-0	0.258
SDC-.5-1	0.262

TABLE 10. continued

Station	Redundancy
14 APRIL 1976 cont.	
SDC-.5-2	0.245
SDC-1-0	0.221
SDC-1-1	0.185
SDC-1-2	0.261
SDC-2-0	0.257
SDC-2-1	0.239
SDC-2-3	0.248
SDC-4-0	0.258
SDC-4-1	0.254
SDC-4-3	0.288
SDC-4-4	0.440
SDC-7-1	0.272
SDC-7-3	0.230
SDC-7-5	0.220
14-15 JULY 1976	
DC-0	0.233
DC-1	0.253
DC-2	0.358
DC-3	0.411
DC-4	0.306
DC-5	0.321
DC-6	0.230
NDC-.5-0	0.231
NDC-.5-1	0.265
NDC-.5-2	0.324
NDC-1-0	0.198
NDC-1-1	0.349
NDC-1-2	0.327
NDC-2-0	0.217
NDC-2-1	0.277
NDC-2-3	0.240
NDC-4-0	0.235
NDC-4-1	0.303
NDC-4-3	0.309
NDC-4-4	0.339
NDC-7-1	0.288
NDC-7-3	0.277
NDC-7-5	0.394
SDC-.5-0	0.256
SDC-.5-1	0.250
SDC-.5-2	0.315
SDC-1-0	0.249
SDC-1-1	0.303
SDC-1-2	0.323
SDC-2-0	0.293
SDC-2-1	0.280
SDC-2-3	0.358
SDC-4-0	0.284
SDC-4-1	0.312
SDC-4-3	0.294
SDC-4-4	0.398
SDC-7-1	0.296
SDC-7-3	0.751
SDC-7-5	0.304

Station	Redundancy
13-14 OCTOBER 1976	
DC-0	0.231
DC-1	0.283
DC-2	0.323
DC-3	0.287
DC-4	0.293
DC-5	0.295
NDC-.5-0	0.220
NDC-.5-1	0.190
NDC-.5-2	0.242
NDC-1-0	0.202
NDC-1-1	0.220
NDC-1-2	0.199
NDC-2-0	0.217
NDC-2-1	0.285
NDC-2-3	0.221
NDC-4-0	0.226
NDC-4-1	0.255
NDC-4-3	0.346
NDC-7-1	0.205
NDC-7-3	0.326
NDC-7-5	0.365
SDC-.5-0	0.213
SDC-.5-1	0.225
SDC-.5-2	0.299
SDC-1-0	0.219
SDC-1-1	0.244
SDC-1-2	0.290
SDC-2-0	0.286
SDC-2-1	0.247
SDC-2-3	0.245
SDC-4-0	0.257
SDC-4-1	0.218
SDC-4-3	0.261
SDC-7-1	0.296
SDC-7-3	0.343

TABLE 11. Means, standard errors, and numbers of observations of in-lake phytoplankton redundancies by seasons, depth zones, and inner or outer station groups in Cook Plant major surveys during preoperational 1970 through 1974 and operational 1975 and 1976.

	10 JUL 1970	25 SEP 1970	12 NOV 1970	15 APR 1971	9 JUL 1971	8 NOV 1971	12 APR 1972	16 JUL 1972	15 OCT 1972
Zone 0, Inner									
Mean	0.270	0.261	0.428	0.269	0.269	-----	0.350	0.285	0.491
S. E.	0.009	0.046	0.029	0.011	0.024	-----	0.015	0.028	0.028
N	11	10	10	10	10	--	7	8	8
Outer									
Mean	0.266	0.273	0.365	0.262	0.357	0.231	0.335	0.317	0.499
S. E.	0.017	0.034	0.027	0.013	0.051	0.027	0.017	0.023	0.021
N	9	10	10	8	10	6	4	9	10
Zone 1, Inner									
Mean	0.487	0.350	0.416	0.263	0.263	-----	0.374	0.359	0.465
S. E.	0.130	0.076	0.040	0.028	0.028	-----	-----	0.056	0.021
N	3	3	3	3	3	-	1	3	3
Outer									
Mean	0.255	0.319	0.382	0.234	0.341	0.298	0.306	0.266	0.508
S. E.	0.029	0.038	0.045	0.014	0.131	0.005	0.020	0.068	0.019
N	4	4	4	3	4	2	2	4	4
Zone 2, Inner									
Mean	0.417	0.207	0.528	0.264	0.524	0.284	0.434	0.280	0.470
S. E.	0.134	0.044	0.029	0.029	0.159	0.054	0.009	0.083	0.006
N	2	2	2	2	2	2	2	2	2
Outer									
Mean	0.315	0.322	0.337	0.273	0.288	0.351	0.344	0.307	0.468
S. E.	0.023	0.052	0.042	0.033	0.043	-----	0.050	0.088	0.042
N	4	4	4	4	4	1	2	4	4

	25 APR 1973	19 JUL 1973	23 OCT 1973	20 APR 1974	11 JUL 1974	9 OCT 1974	17 APR 1975	17 JUL 1975	17 OCT 1975
Zone 0, Inner									
Mean	0.304	0.367	0.463	0.291	0.285	0.329	0.272	0.428	0.356
S. E.	0.024	0.032	0.032	0.011	0.011	0.021	0.026	0.020	0.019
N	8	7	7	9	11	12	12	12	12
Outer									
Mean	0.313	0.382	0.445	0.288	0.306	0.344	0.238	0.402	0.347
S. E.	0.014	0.035	0.019	0.016	0.016	0.042	0.011	0.023	0.025
N	8	9	7	10	9	10	10	9	10
Zone 1, Inner									
Mean	0.373	0.397	0.459	0.268	0.375	0.346	0.247	0.360	0.401
S. E.	0.027	0.029	0.029	0.013	0.030	0.043	0.012	0.059	0.057
N	3	3	3	3	3	3	3	3	3
Outer									
Mean	0.349	0.404	0.485	0.306	0.356	0.391	0.265	0.347	0.371
S. E.	0.024	0.041	0.014	0.022	0.006	0.037	0.008	0.022	0.044
N	4	4	4	4	4	4	4	4	4
Zone 2, Inner									
Mean	0.357	0.439	0.411	0.269	0.337	0.446	0.238	0.413	0.426
S. E.	0.003	0.100	0.075	0.044	0.054	0.001	0.014	0.057	0.023
N	2	2	2	2	2	2	2	2	2
Outer									
Mean	0.352	0.414	0.389	0.262	0.317	0.380	0.253	0.397	0.409
S. E.	0.012	0.056	0.040	0.017	0.013	0.067	0.007	0.025	0.030
N	3	4	4	4	4	4	4	4	4

TABLE 11. continued.

	14 APR 1976	14 JUL 1976	13 OCT 1976
Zone 0, Inner			
Mean	0.266	0.269	0.232
S. E.	0.012	0.013	0.009
N	12	12	12
Outer			
Mean	0.258	0.279	0.249
S. E.	0.007	0.009	0.010
N	10	10	10
Zone 1, Inner			
Mean	0.247	0.336	0.271
S. E.	0.016	0.011	0.037
N	3	3	3
Outer			
Mean	0.261	0.407	0.284
S. E.	0.013	0.118	0.030
N	4	4	4
Zone 2, Inner			
Mean	0.229	0.359	0.290
S. E.	0.022	0.052	0.003
N	2	2	2
Outer			
Mean	0.263	0.325	0.324
S. E.	0.020	0.023	0.032
N	4	4	3

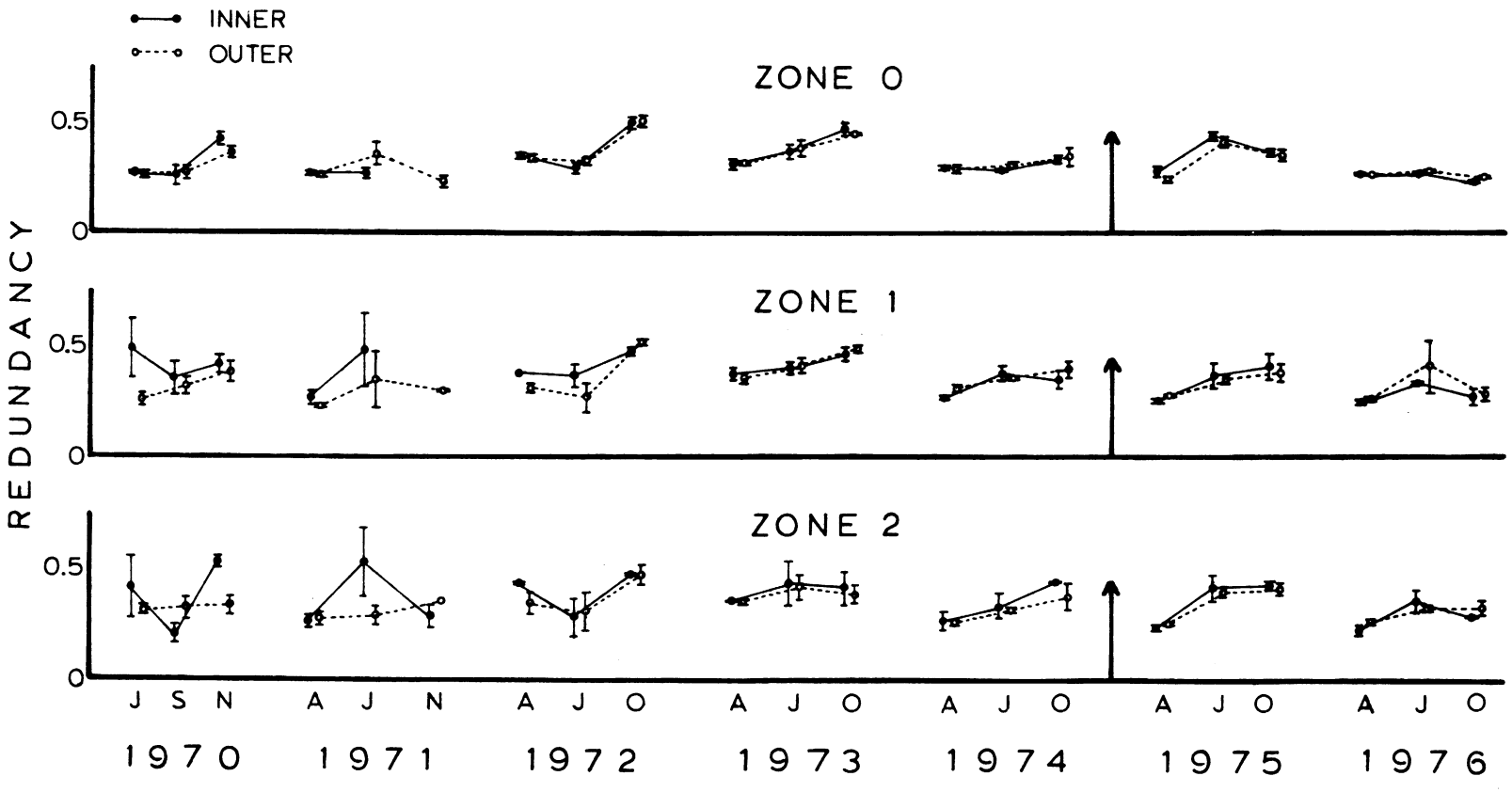

FIG. 8. Mean redundancies of phytoplankton collections from three depth zones in the Cook Plant region, by spring, summer, and fall seasons and inner and outer station groups in 1970 - 1976. The vertical bars show the standard errors. See Table 11 for sample sizes.

parallelism between the annual curves of redundancies at the inner (treatment) and outer (control) station groups, i.e. changes in redundancies of collections at the inner and outer stations have been much more alike that was the case in the earlier preoperational years. Beginning in the preoperational years and continuing in the operational years, the tendency for improved parallelism must be attributed to some cause in the lake itself, rather than to the operation of the plant.

There is nothing in this analysis of redundancy to indicate that Cook Plant operation has had any deleterious effect on the phytoplankton community.

CONCLUSIONS

During the thermal bar condition of 14 April 1976 there was no evidence of concentration of phytoplankton at the convergence in the bar, instead there was progressive increase in phytoplankton density from the coldest water offshore to the warmest water near the shore.

From July 1970 through October 1976 the dominant and codominant phytoplankters in Cook Plant major surveys have shown typical seasonal successions. There is no convincing evidence from analysis of dominant and codominant species that operation of the plant has adversely affected the quality of the local phytoplankton community.

Since 1972, a total of 18 new phytoplankton forms (excluding newly identified species of previously identified genera) have appeared in Cook Plant seasonal collections. The new forms appear to be organisms with preferences or requirements for water of increased conductivity or elevated organic content; their appearances are attributed to the eutrophication of

.the lake, rather than to operation of the Cook Plant.

The centric diatom, Cyclotella comensis, first appeared in Cook Plant collections in October 1975 and has been present since; it attained dominant or codominant status at five stations in October 1976 and was present at all stations in that month. Known earlier from collections in Lakes Superior and Huron and from other parts of Lake Michigan, its appearance and increase at Cook Plant are probably due to some change in the lake, rather than operation of Cook Plant.

Percentage compositions of the phytoplankton by five major algal groups (blue-greens, greens, flagellates, diatoms, and desmids-and-others) at four inshore stations in front of the plant and at two inshore reference stations distant from the plant have been compared over the years 1970 - 1976. The proportions of the major groups have varied substantially from year to year but in any one year the temporal changes at the two sets of stations have shown many similarities.

In the operational years 1975 and 1976 the partitionings of the five major groups were different than in the preoperational years, but in each of these two years they were similar at the plant stations and the reference stations. No essential dissimilarities between plant and reference stations which could be attributed to plant operation have been found.

The numbers of phytoplankton forms taken in the Cook Plant seasonal surveys have shown increasing trends since 1971 in both station groups and in all three depth zones. The increases are attributed to the lake's eutrophication process, rather than to plant operation effects.

Of the nine major algal groups (separately, not combined to five as was done for percentage composition of the community) and total algae, only filamentous blue-greens have shown postoperational increases limited to 1975

and 1976. Coccoid blue-greens showed increased numbers in 1975 and 1976, but the increase first appeared in preoperational 1974 and has not been particularly higher since.

The changes in mean abundances of the other major groups in both station groups and all three depth zones have been:

Desmids	essentially no change
Filamentous greens	" " "
Other algae	" " "
Coccoid greens	" " "
Flagellates	increasing trend since 1970
Pennate diatoms	" " " "
Centric diatoms	" " " " *
Total algae	" " " "

* Very high values in zone 0 in 1972 and 1973 and in zone 1 in 1973.

On the whole, the trends toward higher abundances are attributable to the lake's eutrophication since 1970, rather than to effects of plant operations.

Two-sample *t*-tests of significance of differences between seasonal mean abundances of total algae at treatment and control station groups in shallow (zone 0) and deeper (zone 2) water, showed significant differences (at the .05 level) between treatment and control station group means only in the spring of 1972 when significant differences occurred in both depth zones.

The Wilhm and Dorris diversity indices of phytoplankton collections taken during the seasonal surveys of 1970 - 1976 have tended to become higher since 1972. The increases have taken place in both inner and outer station groups and in all three depth zones. The higher indices indicate a more diverse phytoplankton community now than in the earlier preoperational years. The increased diversity is attributed to the eutrophication of the lake, rather than to plant operation.

Values of phytoplankton redundancy for the seasonal surveys of 1970 -

1976 have been calculated. The plots of these values against time show visual evidence of a trend, beginning in 1973, for redundancies to become somewhat lower. If real, the trend would indicate a tendency for the species in the community to have become more equal in numbers of individuals.

Beginning in 1972 there has been much better parallelism between the annual curves of redundancy at the inner and outer station groups, i.e. changes in redundancy in the two station groups have become much more alike than was the case in the earlier preoperational years. Beginning in the preoperational years and continuing in the operational years, the tendency for improved parallelism must be attributed to some cause in the lake itself, rather than to operation of the Cook Plant.

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APPENDIX A

Physical Measurements

APPENDIX A, 25 September 1970

Station	DC-1	DC-2	DC-3	DC-4	DC-5	DC-6	NDC-.25-1	NDC-.5-0
Time, EST	NOT TAKEN, BARGES ON STATION	1620	1538	1647	1703	1728	1612	
Wind Direction		S	S	S	S	S	W	S
Wind Speed, knts		5	5	5	5	5	5	2
Sea Height, ft		1	1	1	1	1	1	1
Weather		Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm
Secchi Disc, m		4.5	5.2	4.0	4.75	5.5	4.0	
Water Color		Milky brownish light green	Milky brownish green	Slightly milky blue green	Light blue green	Light blue green	Milky brownish light green	
Surface Water Temperature, °C		20.2	19.0	19.2	19.8	20.0	20.0	
Water Depth, m		11.0	15.2	18.9	22.9	38.4	11.6	
Bottom Type		Silty fine brown sand	1/2 inch coarse brown silty sand over fine brown silty sand	Silty fine brown sand with clay lumps	Silty fine brown sand mixed with fine grey clay	Gelatinous dark grey clay	Silty fine brown sand	

APPENDIX A, 25 September 1970, continued.

Station	NDC-.5-1	NDC-.5-2	NDC-.5-3	NDC-1-0	NDC-1-1	NDC-1-2	NDC-1-3	NDC-2-0
Time, EST	0955	1602	1550		0939	1822	1806	
Wind Direction	W	W	W	S	W	NE	NE	W
Wind Speed, knts	2	5	5	2	2	5	10	2
Sea Height, ft	1	1	1	1	1	1	1	1
Weather	Hazy Warm	Clear Warm	Clear Warm		Hazy Warm	Clear	Clear Cooling	
Secchi Disc, m	1.8	2.75	3.8		1.8		4.25	
Water Color	Light brownish green	Milky light brownish green	Brownish light green		Light brownish green		Milky light blue green	
Surface Water Temperature, °C	18.0	20.0	19.1		17.9	19.4	19.0	
Water Depth, m	5.2	7.3	16.5		4.3	11.0	20.1	
Bottom Type	Silty coarse brown sand and gravel	Silty fine brown sand	Silty fine brown sand		Silty brown medium sand	Silty brown fine sand	Silty brown fine sand	

APPENDIX A, 25 September 1970, continued.

Station	NDC-2-1	NDC-2-2	NDC-2-3	NDC-2-4	NDC-4-0	NDC-4-1	NDC-4-2	NDC-4-3
Time, EST	0924	0915	1836	1857		0750	0810	1923
Wind Direction	W	W	NE	NE	W	W	W	NE
Wind Speed, knts	2	2	5	5	2	5	5	5
Sea Height, ft	1	1	1	1	1	2	2	1
Weather	Hazy Warm	Hazy Warm	Clear	Clear Cool	Clear Warm	Hazy Warm	Hazy Warm	Overcast
Secchi Disc, m	2.2	3.5	4.25			2.0	3.0	
Water Color	Light brownish green	Light brownish green				Brownish light green	Brownish light green	
Surface Water Temperature, °C	17.8	18.0	19.0	19.0		17.6	17.8	18.2
Water Depth, m	4.0	7.3	15.5	23.8	1.2	4.6	7.3	16.5
Bottom Type	Brown medium sand	Brown fine sand	Brown fine sand	Silty brown fine sand		Fine brown sand	Medium brown sand over coarse brown sand	Brown medium sand with small pebbles

APPENDIX A, 25 September 1970, continued.

Station	NDC-4-4	NDC-7-1	NDC-7-2	NDC-7-3	NDC-7-4	NDC-7-5	SDC-.25-1	SDC-.5-0
Time, EST	1956	2123	2114	2103	2050	2032	1629	
Wind Direction	NE	NE	NE	NE	NE	NE	S	S
Wind Speed, knts	5	5	5	5	5	5	5	2
Sea Height, ft	1	1	1	1	1	1	1	1
Weather	Overcast	Overcast	Overcast	Overcast	Overcast	Overcast	Clear Warm	
Secchi Disc, m							4.0	
Water Color							Milky light brownish green	
Surface Water Temperature, °C	19.5	19.2	18.8	18.5	18.2	18.2	19.5	
Water Depth, m	42.1	4.9	7.3	12.8	15.5	21.9	11.9	
Bottom Type	1/4 inch very fine silty brown sand over dark grey gelatinous clay	Brown medium sand	Brown medium sand	Silty fine brown sand	Coarse brown sand with some gravel	Silty brown fine sand	Silty brown fine sand	

APPENDIX A, 25 September 1970, continued.

Station	SDC-.5-1	SDC-.5-2	SDC-.5-3	SDC-1-0	SDC-1-1	SDC-1-2	SDC-1-3	SDC-2-0
Time, EST	1014	1516	1527		1027	1505	1449	
Wind Direction	W	S	S	S	W	S	S	S
Wind Speed, knts	2	5	5	2	2	5	5	2
Sea Height, ft	1	1	1	1	1	1	1	1
Weather	Clear Warm	Clear Warm	Clear Warm		Clear Warm	Clear Warm	Clear Warm	Clear Warm
Secchi Disc, m	1.3	3.0	5.1		1.8	3.0	4.1	
Water Color	Light brownish green	Milky light brownish green	Slightly milky brownish green		Light brownish green	Milky brownish light green	Light milky green	
Surface Water Temperature, °C	18.0	19.5	19.0		18.0	19.0	19.0	
Water Depth, m	5.5	5.5	16.5		6.4	11.6	19.2	
Bottom Type	Silty brown fine sand	Silty brown fine sand	Silty brown fine sand		Coarse brown sand with gravel	Silty brown fine sand	Silty brown fine sand	

APPENDIX A, 25 September 1970, continued.

Station	SDC-2-1	SDC-2-2	SDC-2-3	SDC-2-4	SDC-4-0	SDC-4-1	SDC-4-2	SDC-4-3
Time, EST	1041	1356	1407	1430		1107	1058	1331
Wind Direction	S	S	S	S	S	S	S	S
Wind Speed, knts	2	2	5	5	2	2	2	2
Sea Height, ft	1	1	1	1	1	1	1	1
Weather	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm
Secchi Disc, m	2.0	2.0	3.75	5.0		3.0	3.0	5.2
Water Color	Light brownish green	Light brownish green	Light milky green	Milky light blue green		Light brownish green	Light brownish green	Slightly milky blue green
Surface Water Temperature, °C	18.0	18.5	18.6	19.2		18.0	18.2	18.2
Water Depth, m	4.9	7.3	14.6	21.9		4.0	7.3	16.5
Bottom Type	Slightly silty brown coarse sand	Silty brown fine sand	Silty brown fine sand	Silty brown fine sand mixed with fine grey clay		Silty brown fine sand with clay lumps	Silty brown fine sand	Silty brown fine sand

APPENDIX A, 25 September 1970, continued.

Station	SDC-4-4	SDC-7-1	SDC-7-2	SDC-7-3	SDC-7-4	SDC-7-5
Time, EST	1255	1136	1145	1155	1208	1224
Wind Direction	S	S	S	S	S	S
Wind Speed, knts	2	2	2	2	2	2
Sea Height, ft	0.5	1	1	1	1	1
Weather	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm	Clear Warm
Secchi Disc, m	5.5	3.2	4.0	4.5	4.1	5.5
Water Color	Clear blue green	Light milky green	Milky light green	Milky green	Milky green	Clear blue green
Surface Water Temperature, °C	19.0	19.0	18.8	18.8	18.4	19.0
Water Depth, m	32.9	4.6	7.6	14.6	15.5	20.1
Bottom Type	Gelatinous dark grey clay	Silty brown fine sand	Silty brown fine sand	Silty brown fine sand	Silty brown fine sand with fine clay	Silty brown fine sand mixed with fine grey clay

APPENDIX A, 14 April 1976

Station	DC-1	DC-2	DC-3	DC-4	DC-5	DC-6	NDC-.5-1	NDC-.5-2	NDC-1-1
Time, EST	1023	1034	1049	1125	1726	1633	1007	0956	0924
Wind Direction	S	SW	S	Calm	SW	SW	S-SW	S	S
Wind Speed, knts	5	8	5	Calm	10	10	6	6	7
Sea Height, ft	Calm	Calm	Calm	Calm	1	Calm	0.5	0.5	1
Weather	Hazy		Hazy		Hazy	Light haze		Hazy	Hazy
Secchi Disc, m	1.8	1.9	2.8	2.0	2.0	5.0	1.8	1.8	1.7
Water Color	Brownish green	Brownish green	Green	Green	Green	Green	Brownish green	Brownish	
Surface Water Temperature, °C	7.4	7.0	6.1	5.1	6.2	2.9	7.3	7.3	7.1
Water Depth, m	5.5	13.7	18.3	21.0	25.6	43.0	6.4	9.1	6.4
Bottom Type	Fine sand	Fine sand	Medium sand	Very fine sand			Fine sand		Fine sand

APPENDIX A, 14 April 1976, continued.

Station	NDC-1-2	NDC-2-1	NDC-2-3	NDC-4-1	NDC-4-3	NDC-4-4	NDC-7-1	NDC-7-3
Time, EST	0939	0907	0852	0807	0831	1806	1934	1918
Wind Direction	S	S	S	S	S	SW	SSW	SW
Wind Speed, knts	7	10	10	10	12	10	15	14
Sea Height, ft	0.5	1	1	1	1	1	2	2
Weather	Hazy		Hazy	Hazy	Hazy	Hazy	Hazy, partly cloudy	Hazy
Secchi Disc, m	1.9	1.6	2.0	1.2	2.1	5.0	1.1	1.5
Water Color								
Surface Water Temperature, °C	7.0	7.5	6.0	7.0	5.0	2.9	9.5	9.5
Water Depth, m	12.8	5.5	17.4	5.5	3.2	48.8	6.4	15.5
Bottom Type	Coarse sand, pebbles		Medium sand	Fine sand	Coarse and medium sand		Fine sand	Silty fine sand

APPENDIX A, 14 April 1976, continued.

Station	NDC-7-5	SDC-.5-1	SDC-.5-2	SDC-1-1	SDC-1-2	SDC-2-1	SDC-2-3	SDC-4-1
Time, EST	1849	1230	1146	1245	1256	1332	1312	1351
Wind Direction	SW	SE	Calm	Calm	SW	Calm	SW	S
Wind Speed, knts	11	2	Calm	Calm	4	Calm	2	11
Sea Height, ft	1.5	Calm	Calm	Calm	Calm	Calm	Calm	1
Weather	Hazy	Hazy	Hazy		Hazy	Hazy	Hazy	Hazy
Secchi Disc, m	1.9	1.8	1.8	1.8	1.8	1.5	2.0	1.7
Water Color		Greenish brown	Greenish yellow	Greenish yellow	Greenish brown	Greenish brown	Greenish	Greenish brown
Surface Water Temperature, °C	6.1	9.5	9.2	8.5	7.1	10.5	8.8	9.0
Water Depth, m	25.6	6.4	11.0	7.7	13.7	5.5	16.5	5.5
Bottom Type	Silty fine sand	Fine sand		Coarse sand	Sandy silt	Sandy silt	Sandy silt	Silty sand

APPENDIX A, 14 April 1976, continued.

Station	SDC-4-3	SDC-4-4	SDC-7-1	SDC-7-3	SDC-7-5
Time, EST	1412	1602	1441	1456	1525
Wind Direction	SW	SW	SSW	SW	SW
Wind Speed, knts	2	9	17	8	8
Sea Height, ft	Calm	Calm	1	1	0.5
Weather	Hazy	Light haze	Hazy	Light haze	Light haze
Secchi Disc, m	2.1	5.3	1.5	1.8	2.0
Water Color		Green	Greenish brown	Brownish green	Green
Surface Water Temperature, °C	8.1	3.0	9.0	9.8	8.0
Water Depth, m	20.1	37.5	5.5	16.5	22.9
Bottom Type	Silty sand		Fine sand	Silty sand	Silty sand

APPENDIX A. 15 July 1976

Station	DC-1	DC-2	DC-3	DC-4	DC-5	DC-6	NDC-.5-1	NDC-.5-2	NDC-1-1
Time, EST	0929	0944	0959	1040	1710	1606	0915	0901	0832
Wind Direction	S	S	S	SSW	SW	SSW	SW	S	SW
Wind Speed, knts	6	5	2	6	5	8	6	3	3
Sea Height, ft	1	0.5	0.5	0.5	1	1	0.5	1	0.5
Weather	Mostly sunny	Mostly sunny	Mostly sunny	Clear, sunny	Partly cloudy	Cloudy	Partly cloudy	Partly cloudy	Partly cloudy
Secchi Disc, m	2.2	2.9	4.2	4.8	5.6	5.7	2.1	2.5	1.8
Water Color	Light green	Green	Dark green	Green	Green	Dark green	Chalky green	Chalky green	Silver green (?)
Surface Water Temperature, ^{o}C	23.8	22.0	21.1	21.3	21.8	21.8	23.0	23.1	22.5
Water Depth, m	5.5	13.7	18.3	20.1	25.6	41.2	5.5	9.1	5.5
Bottom Type									

Bottom types were not taken during this survey.

APPENDIX A, 15 July 1976, continued.

Station	NDC-1-2	NDC-2-1	NDC-2-3	NDC-4-1	NDC-4-3	NDC-4-4	NDC-7-1	NDC-7-3
Time, EST	0845	0817	0757	0711	0733	1755	1937	1914
Wind Direction	S	SW	NW	SW	SW	SW		
Wind Speed, knts	2	6	3	6	7	5		
Sea Height, ft	1	0.5	1	0.5	1	1	0.5	1
Weather	Partly cloudy	Clear	Clear	Clear	Clear	Cloudy	Partly cloudy	Cloudy
Secchi Disc, m	2.6	2.4	5.0	2.4	5.2	6.7	2.0	4.0
Water Color	Green	Light green	Green	Green	Green	Dark green	Grey green	Grey green
Surface Water Temperature, °C	22.9	22.2	20.2	21.8	20.3	21.7	22.9	22.0
Water Depth, m	13.7	6.4	15.5	7.3	20.1	47.9	7.3	15.5
Bottom Type								

Bottom types were not taken during this survey.

Station	NDC-7-5	SDC-.5-1	SDC-.5-2	SDC-1-1	SDC-1-2	SDC-2-1	SDC-2-3	SDC-4-1
Time, EST	1843	1142	1104	1156	1211	1249	1232	1309
Wind Direction	SW		SSW	S	SSW	Calm	S	Calm
Wind Speed, knts	6	2	6	2	2	Calm	1	Calm
Sea Height, ft	1	Calm	0.5	Calm	Calm	Calm	0.5	Calm
Weather	Cloudy	Clear	Clear	Partly cloudy	Partly cloudy	Partly cloudy	Partly cloudy	
Secchi Disc, m	5.2	2.4	2.8	2.0	2.9	2.4	4.0	2.1
Water Color	Green	Milky green	Silver green (?)	Chalky green	Silver green (?)	Light green	Dark green	
Surface Water Temperature, °C	21.9	22.7	22.8	23.1	22.8	23.5	22.5	23.1
Water Depth, m	24.7	7.3	10.1	7.3	13.7	7.3	16.5	6.4
Bottom Type								

Bottom types were not taken during this survey.

APPENDIX A, 15 July 1976, continued.

Station	SDC-4-3	SDC-4-4	SDC-7-1	SDC-7-3	SDC-7-5
Time, EST	1331	1530	1358	1419	1451
Wind Direction	Calm	SW	Calm	W	SW
Wind Speed, knts	Calm	6	Calm	8 (gusts)	9
Sea Height, ft	Calm	1	Calm	Calm	1.5
Weather	Partly cloudy	Cloudy	Cloudy	Cloudy	Cloudy
Secchi Disc, m	4.5	6.0	2.4	3.9	4.5
Water Color	Dark green	Dark green	Slightly milky green	Green	Dark green
Surface Water Temperature, °C	21.9	21.8	23.3	22.3	21.9
Water Depth, m	18.3	34.8	7.3	16.5	22.0
Bottom Type					

Bottom types were not taken during this survey.

APPENDIX A, 14 October 1976

Station	DC-1	DC-2	DC-3	DC-4	DC-5	DC-6	NDC-.5-1	NDC-.5-2	NDC-1-1
Time, EST	1010	1023	1039	1102	1627		0958	0946	0916
Wind Direction	SSW	SSW			SSW		SW	SW	SW
Wind Speed, knts	11	10			24		13	14	12
Sea Height, ft	3	3.5	3	3.5	4.5		3	3.5	3.5
Weather					Clear		Cloudy		
Secchi Disc, m	0.9		1.8	1.8			0.6	0.8	0.9
Water Color	Grey	Grey green	Slightly greyish green	Greyish green	Grey green		Grey	Grey	Milky grey green
Surface Water Temperature, °C	17.3	14.9	15.0	15.0	15.1			15.8	15.6
Water Depth, m	5.5	12.8	17.4	20.1	23.8		5.5	9.1	5.5
Bottom Type									

NOT TAKEN, TOO ROUGH

Bottom types were not taken during this survey.

APPENDIX A, 14 October 1976, continued.

Station	NDC-1-2	NDC-2-1	NDC-2-3	NDC-4-1	NDC-4-3	NDC-4-4	NDC-7-1	NDC-7-3
Time, EST	0928	0859	0842	0747	0819		1821	1759
Wind Direction	SW	SW	W	WNW	WNW	N	SSW	SSW
Wind Speed, knts	9	12	10	8	11	O	24	29
Sea Height, ft	3.5	3.5	3.5	3.5	4	T	6	6
Weather						T A K E N,		
Secchi Disc, m	1.0	0.9	1.7	1.0	1.9	T O O		1.4
Water Color	Milky grey green	Grey	Milky grey green	Brown grey	Grey green	R O U G H		Grey green
Surface Water Temperature, °C	15.1	14.7	15.0	14.5	15.1		14.9	15.2
Water Depth, m	12.8	4.6	15.5	6.4	18.3		7.3	14.6
Bottom Type								

Bottom types were not taken during this survey.

APPENDIX A, 14 October 1976, continued.

Station	NDC-7-5	SDC-.5-1	SDC-.5-2	SDC-1-1	SDC-1-2	SDC-2-1	SDC-2-3	SDC-4-1
Time, EST	1720	1137	1122	1153	1212	1311	1249	1342
Wind Direction	SSW		SSW	SSW	SSW	SSW	SSW	SSW
Wind Speed, knts	26		16	16	14	16	16	18
Sea Height, ft	5	3	2.5	3	3	3	3.5	3
Weather						Sunny	Partly cloudy	
Secchi Disc, m	2.0	0.6	1.0	0.6	1.1	0.7	1.5	0.5
Water Color	Grey green	Grey	Light green	Brownish grey	Grey green	Greenish grey	Grey green	Greenish grey
Surface Water Temperature, °C	15.1	15.1	15.0	15.2	15.1	15.2	14.9	15.4
Water Depth, m	23.8	5.5	11.0	7.3	12.8	5.5	16.5	5.5
Bottom Type								

Bottom types were not taken during this survey.

APPENDIX A, 14 October 1976, continued.

Station	SDC-4-3	SDC-4-4	SDC-7-1	SDC-7-3	SDC-7-5
Time, EST	1409		1449	1517	
Wind Direction	SSW		SSW	SSW	
Wind Speed, knts	20		14	21	
Sea Height, ft	3		3	3.5	
Weather	Sunny		Clear	Partly cloudy	
Secchi Disc, m	1.2		0.9	1.2	
Water Color	Grey green		Grey green	Grey green	
Surface Water Temperature, °C			14.8	15.0	
Water Depth, m	18.3		5.5	15.5	
Bottom Type					

NOT TAKEN, TOO ROUGH

Bottom types were not taken during this survey.

APPENDIX B

Phytoplankton Collections

Density (cells/ml) of the taxa of phytoplankton found in the survey of September 25, 1970.

25 SEP 70 DC-2

Number of forms = 22 Diversity = 2.53
Counted by: S.W.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Actinastrum hantzschii v. fluviatile	0.5	0.30	Ochromonas sp.	4.1	2.67
Anabaena sp.	1.4	0.89	Oedogonium sp.	0.9	0.59
Aphanothece sp.	3.7	2.37	Oocystis sp.	7.8	5.04
Blue-green unknown filament	0.9	0.59	Peridinium sp.	1.4	0.89
Chroococcus sp.	7.4	4.75	Scenedesmus quadricauda	0.5	0.30
Cryptomonas sp.	0.9	0.59	Scenedesmus sp.	2.3	1.48
Dinobryon divergens	13.4	8.61	Stephanodiscus sp.	0.5	0.30
Glenodinium sp.	18.4	11.87	Tetraedron caudatum	0.9	0.59
Gloeocystis sp.	85.2	54.90	Tetraedron minimum	0.5	0.30
Lagerheimia sp.	1.4	0.89	Tetraedron sp.	0.5	0.30
Melosira sp.	2.3	1.48	Treubaria sp.	0.5	0.30
			Total	155.2	100.0

25 SEP 70 DC-3

Number of forms = 24 Diversity = 3.42
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.8	0.53	Gloeocystis sp.	13.8	3.95
Ankistrodesmus falcatus	1.8	0.53	Lagerheimia longiseta	1.8	0.53
Aphanizomenon flos-aquae	0.9	0.26	Melosira granulata	9.2	2.63
Ceratium hirundinella	1.8	0.53	Melosira granulata v. angustissima	7.4	2.11
Chlamydomonas sp.	99.5	28.42	Mougeotia sp.	4.6	1.32
Chroococcus limneticus	17.5	5.00	Oocystis sp.	63.6	18.16
Coelastrum sphaericum	0.9	0.26	Oscillatoria sp.	0.9	0.26
Cryptomonas sp.	32.2	9.21	Peridinium sp.	9.2	2.63
Cyclotella sp.	4.6	1.32	Quadrigula sp.	0.9	0.26
Dinobryon divergens	20.3	5.79	Synedra acus	9.2	2.63
Fragilaria capucina	7.4	2.11	Tabellaria fenestrata	3.7	1.05
Fragilaria crotonensis	35.0	10.00	Tetraedron minimum	1.8	0.53
			Total	350.0	100.0

25 SEP 70 DC-4

Number of forms = 26 Diversity = 3.80
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	4.6	2.49	Dinobryon divergens	6.4	3.48
Ankistrodesmus braunii	3.7	1.99	Flagellates	4.6	2.49
Ankistrodesmus falcatus	0.9	0.50	Fragilaria crotonensis	15.7	8.46
Aphanizomenon flos-aquae	3.7	1.99	Gloeocystis sp.	6.4	3.48
Aphanocapsa sp.	1.8	1.00	Melosira granulata v. angustissima	10.1	5.47
Blue-green unknown colony	4.6	2.49	Oocystis sp.	25.8	13.93
Ceratium hirundinella	0.9	0.50	Oscillatoria sp.	1.8	1.00
Chlamydomonas sp.	50.7	27.36	Peridinium sp.	8.3	4.48
Chroococcus limneticus	9.2	4.98	Scenedesmus quadricauda	1.8	1.00
Chroococcus turgidus	0.9	0.50	Stephanodiscus sp.	1.8	1.00
Coelastrum sphaericum	0.9	0.50	Tabellaria fenestrata	1.8	1.00
Cryptomonas sp.	8.3	4.48	Tetraedron minimum	0.9	0.50
Cyclotella comta	4.6	2.49	Westella sp.	4.6	2.49
			Total	185.2	100.0

25 SEP 70 DC-5

Number of forms = 14 Diversity = 3.01
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	1.8	0.96	Fragilaria crotonensis	5.5	2.87
Chlamydomonas sp.	45.1	23.44	Gloeocystis sp.	27.6	14.35
Chroococcus sp.	19.3	10.05	Lagerheimia longiseta	0.9	0.48
Cryptomonas sp.	13.8	7.18	Mougeotia sp.	0.9	0.48
Cyclotella sp.	0.9	0.48	Oocystis sp.	42.4	22.01
Dinobryon divergens	18.4	9.57	Peridinium sp.	10.1	5.26
Flagellates	4.6	2.39	Scenedesmus sp.	0.9	0.48
			Total	192.5	100.0

25 SEP 70 DC-6

Number of forms = 17
Counted by: E.K.

Diversity = 3.58

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	2.8	1.80	Dinobryon bavaricum	2.8	1.80
Ankistrodesmus falcatus	0.9	0.60	Dinobryon divergens	6.4	4.19
Blue-green unknown colony	6.4	4.19	Flagellates	4.6	2.99
Ceratium hirundinella	1.8	1.20	Fragilaria crotonensis	15.7	10.18
Chlamydomonas sp.	17.5	11.38	Gloeocystis sp.	12.0	7.78
Chroococcus limneticus	27.6	17.96	Melosira granulata	3.7	2.40
Crucigenia apiculata	4.6	2.99	Oocystis sp.	26.7	17.37
Cryptomonas sp.	7.4	4.79	Peridinium sp.	10.1	6.59
Cyclotella sp.	2.8	1.80			
			Total	153.8	100.0

25 SEP 70 NDC .25-1

Number of forms = 16
Counted by: E.K.

Diversity = 3.46

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	2.8	1.42	Fragilaria crotonensis	2.8	1.42
Blue-green unknown colony	1.8	0.94	Gloeocystis sp.	26.7	13.68
Chlamydomonas sp.	17.5	8.96	Melosira granulata	24.9	12.74
Chroococcus sp.	13.8	7.08	Oocystis sp.	27.6	14.15
Cryptomonas sp.	18.4	9.43	Peridinium sp.	21.2	10.85
Cyclotella sp.	3.7	1.89	Scenedesmus quadricauda	0.9	0.47
Dinobryon divergens	20.3	10.38	Tabellaria fenestrata	0.9	0.47
Flagellates	10.1	5.19	Tetraedron caudatum	1.8	0.94
			Total	195.3	100.0

25 SEP 70 NDC .5-0

Number of forms = 30 Diversity = 3.80
Counted by: E.K.

Taxon	Cells/ml	Percent
Achnanthes sp.	1.8	0.35
Aphanocapsa sp.	3.7	0.70
Blue-green unknown colony	1.8	0.35
Chlamydomonas sp.	86.6	16.43
Chroococcus limneticus	1.8	0.35
Closterium sp.	1.8	0.35
Cocconeis pediculus	1.8	0.35
Cosmarium sp.	1.8	0.35
Crucigenia quadrata	7.4	1.40
Cryptomonas sp.	20.3	3.85
Cyclotella sp.	36.8	6.99
Dinobryon divergens	16.6	3.15
Fragilaria capucina	16.6	3.15
Fragilaria crotonensis	86.6	16.43
Gloeocystis sp.	1.8	0.35
Golenkinia radiata	1.8	0.35
Kirchneriella sp.	1.8	0.35
Melosira granulata	86.6	16.43
Melosira granulata v. angustissima	38.7	7.34
Navicula decussis	7.4	1.40
Navicula sp.	18.4	3.50
Navicula tripunctata	1.8	0.35
Nitzschia sp.	7.4	1.40
Oocystis sp.	27.6	5.24
Oscillatoria sp.	1.8	0.35
Pediastrum simplex	3.7	0.70
Peridinium sp.	11.1	2.10
Scenedesmus opoliensis	1.8	0.35
Scenedesmus sp.	3.7	0.70
Tabellaria fenestrata	25.8	4.90
Total	526.9	100.0

25 SEP 70 NDC .5-1

Number of forms = 25 Diversity = 3.49
Counted by: E.K.

Taxon	Cells/ml	Percent
Anabaena circinalis	1.4	0.49
Aphanocapsa sp.	1.4	0.49
Chlamydomonas sp.	70.0	24.96
Chroococcus sp.	9.2	3.28
Coelastrum sp.	0.5	0.16
Crucigenia apiculata	0.9	0.33
Cryptomonas sp.	29.9	10.67
Cyclotella sp.	5.1	1.81
Dinobryon divergens	20.3	7.22
Fragilaria capucina	2.8	0.99
Fragilaria crotonensis	18.4	6.57
Fragilaria intermedia	1.4	0.49
Gloeocystis sp.	9.7	3.45
Gomphosphaeria lacustris	0.5	0.16
Melosira sp.	41.9	14.94
Mougeotia sp.	1.4	0.49
Nodularia sp.	0.5	0.16
Oocystis sp.	29.9	10.67
Oscillatoria sp.	2.8	0.99
Peridinium sp.	12.9	4.60
Scenedesmus abundans	0.5	0.16
Scenedesmus quadricauda	0.5	0.16
Scenedesmus sp.	4.1	1.48
Synedra ulna	1.4	0.49
Tabellaria fenestrata	13.4	4.76
Total	280.5	100.0

25 SEP 70 NDC .5-2

Number of forms = 28 Diversity = 3.18
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena sp.	0.5	0.24
Anacystis sp.	0.5	0.24
Ankistrodesmus falcatus v. mirabilis	0.5	0.24
Aphanothece sp.	1.8	0.97
Blue-green unknown filament	0.9	0.49
Chroococcus sp.	9.7	5.10
Coelastrum sp.	1.8	0.97
Cryptomonas sp.	6.9	3.64
Cyclotella sp.	0.9	0.49
Dinobryon divergens	19.3	10.19
Flagellates	0.9	0.49
Glenodinium sp.	12.0	6.31
Gloeocystis sp.	76.9	40.53
Kirchneriella sp.	0.9	0.49
Lagerheimia sp.	1.4	0.73
Melosira sp.	1.8	0.97
Ochromonas sp.	18.0	9.47
Oedogonium sp.	0.5	0.24
Oocystis sp.	15.7	8.25
Peridinium sp.	0.9	0.49
Scenedesmus dimorphus	0.5	0.24
Scenedesmus quadricauda	0.5	0.24
Scenedesmus sp.	6.9	3.64
Sphaerocystis sp.	3.7	1.94
Tabellaria fenestrata	4.6	2.43
Tetraedron minimum	0.9	0.49
Tetraedron sp.	0.5	0.24
Treubaria sp.	0.5	0.24
Total	189.8	100.0

25 SEP 70 NDC .5-3

Number of forms = 25 Diversity = 3.68
Counted by: E.K.

Taxon	Cells/ml	Percent
Aphanocapsa sp.	0.9	0.50
Chlamydomonas sp.	55.3	30.15
Chroococcus limneticus	7.4	4.02
Cryptomonas sp.	7.4	4.02
Cyclotella comta	3.7	2.01
Cyclotella pseudostelligera	0.9	0.50
Cyclotella sp.	3.7	2.01
Dinobryon divergens	8.3	4.52
Fragilaria capucina	5.5	3.02
Fragilaria crotonensis	16.6	9.05
Gloeocystis sp.	10.1	5.53
Golenkinia radiata	0.9	0.50
Lagerheimia longiseta	0.9	0.50
Mallomonas sp.	5.5	3.02
Melosira granulata v. angustissima	5.5	3.02
Mougeotia sp.	1.8	1.01
Oocystis sp.	21.2	11.56
Oscillatoria sp.	0.9	0.50
Pediastrum simplex	0.9	0.50
Peridinium sp.	9.2	5.03
Scenedesmus abundans	4.6	2.51
Synedra acus	1.8	1.01
Synedra ostenfeldii	0.9	0.50
Tabellaria fenestrata	8.3	4.52
Tetraedron minimum	0.9	0.50
Total	183.3	100.0

25 SEP 70 NDC 1-0

Number of forms = 33 Diversity = 4.25
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora ovalis	2.8	1.23	Lagerheimia longiseta	0.9	0.41
Amphora ovalis v. libyca	0.9	0.41	Melosira granulata	30.4	13.52
Ankistrodesmus falcatus	0.9	0.41	Melosira granulata v. angustissima	11.1	4.92
Blue-green unknown colony	1.8	0.82	Melosira islandica	3.7	1.64
Chlamydomonas sp.	15.7	6.97	Navicula gastrum	0.9	0.41
Coelastrum microporum	1.8	0.82	Navicula sp.	16.6	7.38
Cryptomonas sp.	9.2	4.10	Oocystis sp.	19.3	8.61
Cyclotella sp.	9.2	4.10	Oscillatoria sp.	1.8	0.82
Cymatopleura solea	0.9	0.41	Pediastrum sp.	0.9	0.41
Dinobryon divergens	12.0	5.33	Peridinium sp.	10.1	4.51
Flagellates	6.4	2.87	Scenedesmus quadricauda	4.6	2.05
Fragilaria crotonensis	14.7	6.56	Surirella sp.	0.9	0.41
Gloeocystis sp.	8.3	3.69	Synedra acus	1.8	0.82
Golenkinia radiata	0.9	0.41	Synedra sp.	3.7	1.64
Gomphonema sp.	0.9	0.41	Tabellaria fenestrata	26.7	11.89
Green filament, unknown	2.8	1.23	Tetraedron pentaedricum	0.9	0.41
Lagerheimia citriformis	0.9	0.41			
			Total	224.8	100.0

25 SEP 70 NDC 1-1

Number of forms = 27 Diversity = 2.08
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora ovalis	0.9	0.16	Lagerheimia longiseta	1.8	0.32
Aphanocapsa sp.	1.8	0.32	Melosira granulata	12.0	2.06
Blue-green unknown colony	2.8	0.48	Microcystis aeruginosa	0.9	0.16
Ceratium hirundinella	1.8	0.32	Navicula gastrum	0.9	0.16
Chlamydomonas sp.	19.3	3.33	Navicula sp.	0.9	0.16
Chroococcus sp.	0.9	0.16	Oocystis sp.	20.3	3.49
Crucigenia quadrata	1.8	0.32	Peridinium sp.	12.9	2.22
Cryptomonas sp.	18.4	3.17	Quadrigula lacustris	3.7	0.63
Cyclotella sp.	2.8	0.48	Scenedesmus quadricauda	0.9	0.16
Dinobryon divergens	19.3	3.33	Scenedesmus sp.	1.8	0.32
Flagellates	11.1	1.90	Synedra sp.	1.8	0.32
Fragilaria crotonensis	7.4	1.27	Tabellaria fenestrata	17.5	3.01
Gloeocystis sp.	11.1	1.90	Tetraedron sp.	0.9	0.16
Green cells, undetermined	405.3	69.73			
			Total	581.2	100.0

25 SEP 70 NDC 1-2

Number of forms = 24 Diversity = 3.30
Counted by: S.W.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena sp.	2.3	1.14	Dinobryon divergens	20.7	10.30
Ankistrodesmus falcatus v. mirabilis	0.5	0.23	Flagellates	1.8	0.92
Ankistrodesmus gelifactum	0.9	0.46	Glenodinium sp.	7.8	3.89
Aphanothece sp.	2.3	1.14	Gloeocystis sp.	53.9	26.77
Ceratium hirundinella	0.5	0.23	Kirchneriella sp.	1.4	0.69
Chlamydomonas sp.	2.8	1.37	Lagerheimia sp.	0.5	0.23
Chroococcus sp.	7.4	3.66	Melosira sp.	4.6	2.29
Closteriopsis longissima	0.5	0.23	Ochromonas sp.	42.4	21.05
Cosmarium sp.	0.5	0.23	Oedogonium sp.	0.5	0.23
Crucigenia sp.	3.7	1.83	Oocystis sp.	14.3	7.09
Cryptomonas sp.	22.6	11.21	Scenedesmus sp.	6.4	3.20
Cyclotella sp.	0.9	0.46	Tabellaria fenestrata	2.3	1.14
			Total	201.3	100.0

25 SEP 70 NDC 1-3

Number of forms = 14 Diversity = 2.90
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.8	1.90	Dinobryon divergens	2.8	2.86
Ankistrodesmus falcatus	0.9	0.95	Gloeocystis sp.	5.5	5.71
Chlamydomonas sp.	23.9	24.76	Green filament, unknown	0.9	0.95
Chroococcus sp.	9.2	9.52	Oocystis sp.	29.5	30.48
Cryptomonas sp.	10.1	10.48	Oscillatoria sp.	0.9	0.95
Cyclotella sp.	2.8	2.86	Peridinium sp.	6.4	6.67
Dactylococcopsis sp.	0.9	0.95	Tabellaria fenestrata	0.9	0.95
			Total	96.7	100.0

survey of September 25, 1970, continued.

25 SEP 70 NDC 2-0

Number of forms = 31 Diversity = 3.51
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora sp.	1.8	0.36	Golenkinia radiata	0.9	0.18
Aphanocapsa sp.	7.4	1.44	Melosira granulata	100.4	19.68
Blue-green unknown colony	0.9	0.18	Melosira granulata v. angustissima	76.5	14.98
Chlamydomonas sp.	6.4	1.26	Melosira varians	1.8	0.36
Chroococcus sp.	4.6	0.90	Navicula sp.	15.7	3.07
Cocconeis pediculus	0.9	0.18	Oocystis sp.	9.2	1.81
Crucigenia quadrata	1.8	0.36	Pediastrum sp.	0.9	0.18
Cryptomonas sp.	7.4	1.44	Peridinium sp.	6.4	1.26
Cyclotella sp.	36.8	7.22	Scenedesmus opoliensis	2.8	0.54
Dactylococcopsis sp.	0.9	0.18	Scenedesmus sp.	5.5	1.08
Desmatractum sp.	0.9	0.18	Stephanodiscus sp.	0.9	0.18
Dinobryon divergens	10.1	1.99	Synedra acus	0.9	0.18
Fragilaria capucina	33.2	6.50	Tabellaria fenestrata	56.2	11.01
Fragilaria crotonensis	104.1	20.40	Tetraedron caudatum	0.9	0.18
Fragilaria intermedia	8.3	1.62	Tetraedron minimum	1.8	0.36
Gloeocystis sp.	3.7	0.72			
			Total	510.3	100.0

25 SEP 70 NDC 2-1

Number of forms = 30 Diversity = 4.04
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora sp.	0.9	0.43	Fragilaria crotonensis	10.1	4.70
Anabaena circinalis	2.8	1.28	Gloeocystis sp.	4.6	2.14
Aphanocapsa sp.	3.7	1.71	Lagerheimia citriformis	1.8	0.85
Blue-green unknown colony	2.8	1.28	Melosira granulata	9.2	4.27
Ceratium hirundinella	1.8	0.85	Melosira granulata v. angustissima	21.2	9.83
Chlamydomonas sp.	15.7	7.26	Mougeotia sp.	2.8	1.28
Chroococcus limneticus	13.8	6.41	Navicula sp.	6.4	2.99
Crucigenia sp.	0.9	0.43	Oocystis sp.	18.4	8.55
Cryptomonas sp.	8.3	3.85	Peridinium sp.	5.5	2.56
Cyclotella sp.	1.8	0.85	Scenedesmus abundans	0.9	0.43
Cymbella sp.	0.9	0.43	Scenedesmus quadricauda	0.9	0.43
Desmatractum sp.	0.9	0.43	Scenedesmus sp.	0.9	0.43
Dictyosphaerium pulchellum	0.9	0.43	Synedra sp.	0.9	0.43
Dinobryon divergens	41.5	19.23	Tabellaria fenestrata	20.3	9.40
Fragilaria capucina	13.8	6.41	Treubaria setigerum	0.9	0.43
			Total	215.5	100.0

25 SEP 70 NDC 2-2

Number of forms = 45 Diversity = 3.68
Counted by: E.K.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	0.9	0.13
Anabaena circinalis	1.8	0.27
Aphanizomenon flos-aquae	1.8	0.27
Aphanocapsa sp.	4.6	0.66
Asterionella formosa	3.7	0.53
Chlamydomonas sp.	232.1	33.51
Chroococcus limneticus	17.5	2.53
Chroococcus sp.	1.8	0.27
Closteriopsis sp.	12.0	1.73
Closterium sp.	0.9	0.13
Crucigenia sp.	3.7	0.53
Cryptomonas sp.	58.0	8.38
Cyclotella sp.	12.9	1.86
Desmatractum sp.	1.8	0.27
Dictyosphaerium pulchellum	1.8	0.27
Dinobryon divergens	47.0	6.78
Dinoflagellate cysts	0.9	0.13
Fragilaria capucina	14.7	2.13
Fragilaria construens	1.8	0.27
Fragilaria crotonensis	85.7	12.37
Gloeocystis sp.	8.3	1.20
Golenkinia radiata	0.9	0.13
Gomphonema sp.	0.9	0.13
Gomphosphaeria lacustris	0.9	0.13
Kirchneriella sp.	0.9	0.13
Lagerheimia longiseta	2.8	0.40
Mallomonas sp.	6.4	0.93
Melosira granulata	45.1	6.52
Melosira granulata v. angustissima	33.2	4.79
Microcystis aeruginosa	0.9	0.13
Mougeotia sp.	3.7	0.53
Navicula reinhardtii	0.9	0.13
Navicula sp.	2.8	0.40
Nitzschia sp.	2.8	0.40
Oocystis sp.	31.3	4.52
Oscillatoria sp.	4.6	0.66
Pediastrum sp.	0.9	0.13
Peridinium sp.	5.5	0.80
Quadrigula lacustris	1.8	0.27
Scenedesmus quadricauda	3.7	0.53
Scenedesmus sp.	1.8	0.27
Spores	4.6	0.66
Surirella angusta	0.9	0.13
Tabellaria fenestrata	19.3	2.79
Tetraedron minimum	1.8	0.27
Total	692.7	100.0

25 SEP 70 NDC 2-3

Number of forms = 27 Diversity = 3.03
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena sp.	2.8	1.15
Ankistrodesmus falcatus v. mirabilis	0.5	0.19
Ankistrodesmus falcatus	0.5	0.19
Ankistrodesmus gelifactum	0.5	0.19
Ankistrodesmus sp.	0.9	0.38
Aphanothece sp.	1.4	0.58
Chlamydomonas sp.	11.1	4.61
Chroococcus sp.	9.7	4.03
Coelastrum sp.	0.9	0.38
Crucigenia sp.	4.6	1.92
Cryptomonas sp.	23.5	9.79
Cyclotella sp.	0.5	0.19
Dinobryon divergens	10.1	4.22
Flagellates	0.5	0.19
Glenodinium sp.	7.4	3.07
Gloeocystis sp.	59.0	24.57
Green colony, unknown	0.5	0.19
Kirchneriella sp.	0.9	0.38
Melosira sp.	1.8	0.77
Ochromonas sp.	80.1	33.40
Oedogonium sp.	0.5	0.19
Oocystis sp.	16.1	6.72
Oscillatoria sp.	0.5	0.19
Peridinium sp.	0.5	0.19
Scenedesmus sp.	4.1	1.73
Tabellaria fenestrata	0.9	0.38
Tetraedron caudatum	0.5	0.19
Total	240.0	100.0

25 SEP 70 NDC 2-4

Number of forms = 23 Diversity = 3.50
Counted by: E.K.

Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.30
Anabaena sp.	2.8	0.89
Aphanocapsa sp.	3.7	1.18
Blue-green unknown colony	2.8	0.89
Chlamydomonas sp.	76.5	24.56
Chroococcus limneticus	10.1	3.25
Chroococcus sp.	16.6	5.33
Cryptomonas sp.	24.9	7.99
Dictyosphaerium pulchellum	2.8	0.89
Dinobryon divergens	10.1	3.25
Flagellates	3.7	1.18
Fragilaria capucina	2.8	0.89
Fragilaria crotonensis	23.9	7.69
Green cells, undetermined	53.4	17.16
Green colony, unknown	12.9	4.14
Lagerheimia longiseta	0.9	0.30
Lagerheimia sp.	0.9	0.30
Mougeotia sp.	0.9	0.30
Oocystis sp.	40.5	13.02
Peridinium sp.	8.3	2.66
Synedra acus	4.6	1.48
Synedra ostenfeldii	2.8	0.89
Tabellaria fenestrata	4.6	1.48
Total	311.3	100.0

25 SEP 70 NDC 4-0

Number of forms = 42 Diversity = 3.41
Counted by: E.K.

Taxon	Cells/ml	Percent
Amphora ovalis	1.8	0.17
Amphora sp.	6.4	0.58
Ankistrodesmus falcatus	0.9	0.08
Aphanocapsa sp.	3.7	0.33
Asterionella formosa	3.7	0.33
Blue-green unknown colony	0.9	0.08
Caloneis sp.	0.9	0.08
Chlamydomonas sp.	16.6	1.50
Chroococcus sp.	6.4	0.58
Cocconeis placentula	1.8	0.17
Crucigenia quadrata	0.9	0.08
Cryptomonas sp.	14.7	1.33
Cyclotella sp.	121.6	10.99
Cymatopleura solea	2.8	0.25
Dinobryon divergens	7.4	0.67
Epithemia sp.	0.9	0.08
Eunotia sp.	0.9	0.08
Fragilaria capucina	56.2	5.08
Fragilaria construens	11.1	1.00
Fragilaria crotonensis	257.9	23.31
Fragilaria intermedia	28.6	2.58
Gloeocystis sp.	4.6	0.42
Gomphonema sp.	0.9	0.08
Gomphosphaeria lacustris	0.9	0.08
Lagerheimia longiseta	2.8	0.25
Mallomonas sp.	1.8	0.17
Melosira granulata	257.9	23.31
Melosira granulata v. angustissima	154.8	13.99
Navicula sp.	11.1	1.00
Nitzschia sp.	11.1	1.00
Oocystis sp.	11.1	1.00
Opephora martyi	2.8	0.25
Peridinium sp.	6.4	0.58
Quadrigula lacustris	3.7	0.33
Scenedesmus sp.	11.1	1.00
Spores	6.4	0.58
Surirella sp.	0.9	0.08
Synedra ulna	2.8	0.25
Synedra ulna v. chaseana	1.8	0.17
Tabellaria fenestrata	65.4	5.91
Tetraedron caudatum	0.9	0.08
Tetraedron minimum	0.9	0.08
Total	1106.3	100.0

25 SEP 70 NDC 4-1

Number of forms = 33 Diversity = 3.87
Counted by: E.K.

Taxon	Cells/ml	Percent
Amphora ovalis v. libyca	7.4	1.56
Anabaena circinalis	0.9	0.19
Ankistrodesmus falcatus	6.4	1.36
Aphanocapsa sp.	8.3	1.75
Asterionella formosa	5.5	1.17
Chlamydomonas sp.	39.6	8.37
Chroococcus minutus	11.1	2.33
Chroococcus sp.	9.2	1.95
Coelastrum microporum	0.9	0.19
Cryptomonas sp.	12.9	2.72
Cyclotella sp.	20.3	4.28
Cymbella sp.	0.9	0.19
Dinobryon divergens	47.9	10.12
Fragilaria capucina	10.1	2.14
Fragilaria crotonensis	129.0	27.24
Gloeocystis sp.	4.6	0.97
Golenkinia radiata	0.9	0.19
Lagerheimia longiseta	0.9	0.19
Mallomonas sp.	2.8	0.58
Melosira granulata	14.7	3.11
Melosira granulata v. angustissima	24.9	5.25
Navicula scutelloides	0.9	0.19
Navicula sp.	7.4	1.56
Oocystis sp.	24.9	5.25
Pediastrum sp.	0.9	0.19
Peridinium sp.	10.1	2.14
Plagiotropis lepidoptera	0.9	0.19
Scenedesmus sp.	2.8	0.58
Stephanodiscus sp.	2.8	0.58
Synedra sp.	2.8	0.58
Synedra ulna	3.7	0.78
Tabellaria fenestrata	50.7	10.70
Tetraedron minimum	6.4	1.36
Total	473.5	100.0

25 SEP 70 NDC 4-2

Number of forms = 31 Diversity = 3.76
Counted by: E.K.

Taxon	Cells/ml	Percent
Anabaena sp.	1.8	0.37
Ankistrodesmus falcatus	5.5	1.12
Aphanocapsa sp.	1.8	0.37
Chlamydomonas sp.	105.0	21.35
Chroococcus sp.	5.5	1.12
Closterium sp.	1.8	0.37
Crucigenia sp.	18.4	3.75
Cryptomonas sp.	62.6	12.73
Cyclotella meneghiniana	1.8	0.37
Cyclotella sp.	16.6	3.37
Cymatopleura solea	1.8	0.37
Dinobryon divergens	22.1	4.49
Fragilaria capucina	18.4	3.75
Fragilaria crotonensis	92.1	18.73
Gloeocystis sp.	3.7	0.75
Green colony, unknown	5.5	1.12
Kirchneriella sp.	1.8	0.37
Lagerheimia sp.	1.8	0.37
Mallomonas sp.	1.8	0.37
Melosira granulata	27.6	5.62
Melosira granulata v. angustissima	16.6	3.37
Mougeotia sp.	1.8	0.37
Oocystis sp.	22.1	4.49
Oscillatoria sp.	1.8	0.37
Peridinium sp.	9.2	1.87
Quadrigula lacustris	5.5	1.12
Scenedesmus abundans	1.8	0.37
Scenedesmus sp.	3.7	0.75
Synedra ulna	1.8	0.37
Tabellaria fenestrata	27.6	5.62
Tetraedron minimum	1.8	0.37
Total	491.9	100.0

25 SEP 70 NDC 4-3

Number of forms = 34
Counted by: E.K.

Diversity = 3.44

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.20	Mallomonas sp.	3.7	0.82
Ankistrodesmus falcatus	0.9	0.20	Melosira granulata	16.6	3.67
Blue-green unknown colony	0.9	0.20	Melosira granulata v. angustissima	5.5	1.22
Ceratium hirundinella	2.8	0.61	Mougeotia sp.	1.8	0.41
Chlamydomonas sp.	134.5	29.80	Ochromonas sp.	4.6	1.02
Chroococcus limneticus	4.6	1.02	Oocystis sp.	52.5	11.63
Chroococcus sp.	4.6	1.02	Oocystis submarina	0.9	0.20
Cryptomonas sp.	41.5	9.18	Oscillatoria sp.	3.7	0.82
Cyclotella sp.	1.8	0.41	Peridinium sp.	2.8	0.61
Dinobryon divergens	43.3	9.59	Phormidium sp.	0.9	0.20
Flagellates	5.5	1.22	Quadrigula lacustris	0.9	0.20
Fragilaria crotonensis	72.8	16.12	Scenedesmus dimorphus	0.9	0.20
Franceia droescheri	0.9	0.20	Scenedesmus quadricauda	1.8	0.41
Gloeocystis sp.	12.0	2.65	Spores	0.9	0.20
Green colony, unknown	4.6	1.02	Stephanodiscus sp.	5.5	1.22
Lagerheimia longiseta	0.9	0.20	Synedra acus	0.9	0.20
Lagerheimia sp.	0.9	0.20	Tabellaria fenestrata	13.8	3.06
			Total	451.4	100.0

25 SEP 70 NDC 4-4

Number of forms = 27
Counted by: E.K.

Diversity = 3.04

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.4	0.43	Fragilaria capucina	0.9	0.28
Aphanocapsa sp.	3.7	1.14	Fragilaria crotonensis	18.0	5.56
Blue-green unknown colony	0.5	0.14	Gloeocystis sp.	32.2	9.97
Ceratium hirundinella	0.9	0.28	Golenkinia radiata	1.8	0.57
Chlamydomonas sp.	79.2	24.50	Lagerheimia longiseta	0.9	0.28
Chroococcus limneticus	64.0	19.80	Mallomonas sp.	0.5	0.14
Coelastrum sp.	0.9	0.28	Oocystis sp.	62.2	19.23
Cosmarium sp.	0.5	0.14	Peridinium sp.	1.4	0.43
Crucigenia apiculata	1.4	0.43	Quadrigula lacustris	0.9	0.28
Crucigenia quadrata	1.4	0.43	Scenedesmus abundans	0.5	0.14
Cryptomonas sp.	36.8	11.40	Scenedesmus sp.	0.5	0.14
Cyclotella sp.	1.8	0.57	Synedra acus	4.1	1.28
Desmatractum sp.	0.9	0.28	Tabellaria fenestrata	0.9	0.28
Dinobryon divergens	5.1	1.57			
			Total	323.3	100.0

25 SEP 70 NDC 7-1 Number of forms = 29 Diversity = 3.12
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora ovalis v. libyca	0.9	0.11	Green filament, unknown	2.8	0.33
Ankistrodesmus falcatus	2.8	0.33	Lagerheimia longiseta	3.7	0.44
Aphanocapsa sp.	3.7	0.44	Mallomonas sp.	3.7	0.44
Ceratium hirundinella	1.8	0.22	Melosira granulata	187.9	22.27
Chlamydomonas sp.	46.1	5.46	Melosira granulata v. angustissima	29.5	3.49
Chroococcus sp.	12.0	1.42	Navicula sp.	2.8	0.33
Cosmarium sp.	0.9	0.11	Oocystis sp.	20.3	2.40
Cryptomonas sp.	71.8	8.52	Peridinium sp.	13.8	1.64
Cyclotella sp.	23.9	2.84	Scenedesmus quadricauda	0.9	0.11
Dinobryon divergens	34.1	4.04	Stephanodiscus transilvanicus	0.9	0.11
Fragilaria capucina	6.4	0.76	Synedra sp.	1.8	0.22
Fragilaria crotonensis	297.5	35.26	Synedra ulna	1.8	0.22
Fragilaria intermedia	7.4	0.87	Synedra ulna v. danica	0.9	0.11
Gloeocystis sp.	10.1	1.20	Tabellaria fenestrata	50.7	6.00
Golenkinia radiata	2.8	0.33			
			Total	843.8	100.0

25 SEP 70 NDC 7-2 Number of forms = 32 Diversity = 3.49
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	4.1	1.07	Fragilaria crotonensis	100.9	26.01
Ankistrodesmus falcatus	0.9	0.24	Fragilaria intermedia	1.4	0.36
Aphanocapsa sp.	3.7	0.95	Gloeocystis sp.	11.5	2.97
Blue-green unknown colony	0.9	0.24	Golenkinia radiata	1.8	0.48
Ceratium hirundinella	0.5	0.12	Lagerheimia longiseta	1.8	0.48
Chlamydomonas sp.	41.9	10.81	Melosira sp.	39.1	10.10
Chroococcus limneticus	12.9	3.33	Mougeotia sp.	2.3	0.59
Chroococcus turgidus	0.5	0.12	Navicula sp.	0.9	0.24
Closterium sp.	0.5	0.12	Nodularia sp.	0.9	0.24
Coelastrum sp.	0.5	0.12	Oocystis sp.	39.1	10.10
Crucigenia sp.	1.4	0.36	Peridinium sp.	9.7	2.49
Cryptomonas sp.	25.8	6.65	Quadrigula lacustris	1.4	0.36
Cyclotella sp.	3.7	0.95	Scenedesmus sp.	4.1	1.07
Dictyosphaerium pulchellum	0.5	0.12	Synedra acus	0.9	0.24
Dinobryon divergens	61.7	15.91	Tabellaria fenestrata	5.5	1.43
Fragilaria capucina	5.1	1.31	Tetraedron minimum	1.8	0.48
			Total	387.8	100.0

25 SEP 70 NDC 7-3

Number of forms = 28 Diversity = 3.35
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	4.6	0.95	Lagerheimia longiseta	0.9	0.19
Ankistrodesmus falcatus	1.8	0.38	Mallomonas sp.	1.8	0.38
Ceratium hirundinella	2.8	0.57	Melosira granulata	37.8	7.78
Chlamydomonas sp.	179.6	37.00	Melosira granulata v. angustissima	20.3	4.17
Chroococcus limneticus	12.9	2.66	Mougeotia sp.	2.8	0.57
Cosmarium sp.	1.8	0.38	Navicula sp.	0.9	0.19
Crucigenia apiculata	11.1	2.28	Nitzschia acicularis	9.2	1.90
Cryptomonas sp.	72.8	14.99	Oocystis sp.	27.6	5.69
Cyclotella sp.	12.0	2.47	Pediastrum duplex	0.9	0.19
Dinobryon divergens	31.3	6.45	Peridinium sp.	7.4	1.52
Fragilaria capucina	5.5	1.14	Scenedesmus quadricauda	0.9	0.19
Fragilaria crotonensis	11.1	2.28	Synedra acus	3.7	0.76
Gloeocystis sp.	14.7	3.04	Synedra ulna v. chaseana	3.7	0.76
Golenkinia radiata	0.9	0.19	Tabellaria fenestrata	4.6	0.95
			Total	485.4	100.0

25 SEP 70 NDC 7-4

Number of forms = 34 Diversity = 3.42
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	4.6	1.15	Green filament, unknown	0.9	0.23
Ankistrodesmus falcatus	0.9	0.23	Lagerheimia citriformis	0.9	0.23
Aphanizomenon flos-aquae	0.5	0.12	Lagerheimia longiseta	0.9	0.23
Blue-green unknown colony	1.4	0.35	Mallomonas sp.	3.7	0.92
Ceratium hirundinella	0.9	0.23	Melosira granulata	22.1	5.52
Chlamydomonas sp.	137.3	34.29	Mougeotia sp.	3.7	0.92
Chroococcus limneticus	14.3	3.57	Oocystis sp.	41.0	10.24
Coelastrum sphaericum	0.9	0.23	Oscillatoria sp.	0.9	0.23
Cosmarium sp.	0.5	0.12	Peridinium sp.	7.8	1.96
Crucigenia apiculata	10.6	2.65	Quadrigula lacustris	0.9	0.23
Crucigenia quadrata	1.4	0.35	Scenedesmus abundans	0.9	0.23
Cryptomonas sp.	43.3	10.82	Scenedesmus dimorphus	0.5	0.12
Cyclotella sp.	4.1	1.04	Scenedesmus quadricauda	1.4	0.35
Dinobryon divergens	43.3	10.82	Scenedesmus sp.	0.5	0.12
Fragilaria capucina	5.5	1.38	Spores	6.0	1.50
Fragilaria crotonensis	24.4	6.10	Synedra acus	0.9	0.23
Gloeocystis sp.	9.7	2.42	Tabellaria fenestrata	3.7	0.92
			Total	400.2	100.0

25 SEP 70 NDC 7-5

Number of forms = 29 Diversity = 3.96
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	1.8	0.66	Green colony, unknown	1.8	0.66
Aphanocapsa sp.	0.9	0.33	Lagerheimia longiseta	1.8	0.66
Blue-green unknown colony	2.8	1.00	Melosira granulata	7.4	2.66
Chlamydomonas sp.	35.9	12.96	Melosira granulata v. angustissima	27.6	9.97
Chroococcus limneticus	11.1	3.99	Mougeotia sp.	0.9	0.33
Closteriopsis longissima	0.9	0.33	Oocystis sp.	25.8	9.30
Cosmarium sp.	0.9	0.33	Pediastrum sp.	0.9	0.33
Crucigenia apiculata	11.1	3.99	Peridinium sp.	7.4	2.66
Cryptomonas sp.	37.8	13.62	Quadrigula chodatii	0.9	0.33
Cyclotella comta	0.9	0.33	Scenedesmus sp.	1.8	0.66
Cyclotella sp.	4.6	1.66	Spores	25.8	9.30
Dinobryon divergens	16.6	5.98	Synedra acus	0.9	0.33
Flagellates	6.4	2.33	Tabellaria fenestrata	5.5	1.99
Fragilaria crotonensis	26.7	9.63	Tetraedron sp.	0.9	0.33
Gloeocystis sp.	9.2	3.32			
			Total	277.3	100.0

25 SEP 70 SDC .25-1

Number of forms = 29 Diversity = 3.62
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	0.5	0.34	Lagerheimia citriformis	0.5	0.34
Ankistrodesmus falcatus	1.4	1.03	Lagerheimia longiseta	1.4	1.03
Chlamydomonas sp.	29.9	22.34	Melosira granulata	4.6	3.44
Chroococcus limneticus	6.9	5.15	Melosira granulata v. angustissima	2.3	1.72
Crucigenia quadrata	0.9	0.69	Mougeotia sp.	0.5	0.34
Cryptomonas sp.	6.0	4.47	Nodularia sp.	0.5	0.34
Cyclotella sp.	0.9	0.69	Oocystis sp.	25.8	19.24
Dictyosphaerium pulchellum	0.5	0.34	Oscillatoria sp.	0.5	0.34
Dinobryon divergens	20.7	15.46	Pediastrum simplex	0.5	0.34
Fragilaria capucina	5.1	3.78	Peridinium sp.	7.8	5.84
Fragilaria crotonensis	4.1	3.09	Quadrigula lacustris	0.5	0.34
Gloeocystis sp.	4.6	3.44	Scenedesmus quadricauda	0.5	0.34
Golenkinia radiata	1.4	1.03	Tabellaria fenestrata	2.8	2.06
Gomphosphaeria lacustris	0.5	0.34	Tetraedron minimum	1.8	1.37
Kirchneriella sp.	0.9	0.69			
			Total	134.0	100.0

survey of September 25, 1970, continued.

25 SEP 70 SDC .5-0

Number of forms = 43 Diversity = 4.14
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora sp.	1.8	0.61	Melosira granulata v. angustissima	16.6	5.53
Anabaena circinalis	0.5	0.15	Melosira islandica	4.6	1.54
Blue-green unknown colony	1.8	0.61	Mougeotia sp.	0.5	0.15
Caloneis ventricosa	0.9	0.31	Navicula costulata	0.5	0.15
Chlamydomonas sp.	47.4	15.82	Navicula sp.	7.4	2.46
Chroococcus limneticus	5.5	1.84	Oocystis sp.	15.7	5.22
Closterium sp.	0.5	0.15	Oscillatoria sp.	0.9	0.31
Coelastrum sp.	0.5	0.15	Peridinium sp.	8.8	2.92
Cosmarium sp.	0.5	0.15	Quadrigula lacustris	0.5	0.15
Crucigenia quadrata	0.9	0.31	Scenedesmus abundans	2.8	0.92
Cryptomonas sp.	19.3	6.45	Scenedesmus opoliensis	1.8	0.61
Cyclotella sp.	29.0	9.68	Scenedesmus quadricauda	0.9	0.31
Dictyosphaerium pulchellum	0.9	0.31	Scenedesmus sp.	1.8	0.61
Dinobryon divergens	14.7	4.92	Spores	1.4	0.46
Dinoflagellate cysts	1.4	0.46	Staurastrum sp.	0.5	0.15
Fragilaria capucina	5.1	1.69	Synedra acus	0.5	0.15
Fragilaria crotonensis	28.1	9.37	Synedra sp.	0.5	0.15
Fragilaria intermedia	0.9	0.31	Synedra ulna v. chaseana	0.5	0.15
Gloeocystis sp.	5.1	1.69	Tabellaria fenestrata	29.5	9.83
Golenkinia radiata	0.9	0.31	Tetraedron minimum	4.1	1.38
Mallomonas sp.	1.8	0.61	Treubaria setigerum	0.5	0.15
Melosira granulata	32.2	10.75			
			Total	299.8	100.0

25 SEP 70 SDC .5-1

Number of forms = 29 Diversity = 3.61
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.34	Gomphonema sp.	2.8	1.01
Ankistrodesmus falcatus	4.6	1.69	Lagerheimia longiseta	4.6	1.69
Chlamydomonas sp.	12.0	4.39	Melosira granulata	87.5	32.09
Chroococcus sp.	12.0	4.39	Mougeotia sp.	2.8	1.01
Closterium sp.	2.8	1.01	Navicula sp.	1.8	0.68
Coelastrum sp.	1.8	0.68	Oocystis sp.	12.0	4.39
Cosmarium sp.	2.8	1.01	Oscillatoria sp.	2.8	1.01
Crucigenia apiculata	0.9	0.34	Pediastrum sp.	4.6	1.69
Crucigenia quadrata	6.4	2.36	Peridinium sp.	6.4	2.36
Cryptomonas sp.	28.6	10.47	Scenedesmus sp.	1.8	0.68
Cyclotella sp.	1.8	0.68	Synedra ulna	0.9	0.34
Dinobryon divergens	25.8	9.46	Synedra ulna v. chaseana	0.9	0.34
Fragilaria capucina	3.7	1.35	Tabellaria fenestrata	31.3	11.49
Fragilaria crotonensis	5.5	2.03	Tetraedron minimum	0.9	0.34
Gloeocystis sp.	1.8	0.68			
			Total	272.7	100.0

25 SEP 70 SDC .5-2

Number of forms = 25 Diversity = 3.69
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Aphanocapsa sp.	0.9	0.51	Lagerheimia sp.	0.9	0.51
Chlamydomonas sp.	11.1	6.09	Melosira granulata v. angustissima	5.5	3.05
Chroococcus limneticus	6.4	3.55	Mougeotia sp.	1.8	1.02
Coscinodiscus sp.	0.9	0.51	Oocystis sp.	19.3	10.66
Cryptomonas sp.	14.7	8.12	Oscillatoria sp.	0.9	0.51
Cyclotella sp.	32.2	17.77	Peridinium sp.	13.8	7.61
Desmatractum sp.	0.9	0.51	Quadrigula lacustris	0.9	0.51
Dictyosphaerium pulchellum	0.9	0.51	Scenedesmus sp.	0.9	0.51
Dinobryon divergens	36.8	20.30	Schroederia judayi	0.9	0.51
Fragilaria capucina	3.7	2.03	Stephanodiscus tenuis	2.8	1.52
Fragilaria crotonensis	3.7	2.03	Synedra sp.	2.8	1.52
Gloeocystis sp.	8.3	4.57	Tabellaria fenestrata	9.2	5.08
Green colony, unknown	0.9	0.51			
			Total	181.5	100.0

25 SEP 70 SDC .5-3

Number of forms = 22 Diversity = 3.52
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.8	1.33	Gloeocystis sp.	7.4	5.33
Aphanocapsa sp.	0.9	0.67	Melosira granulata	7.4	5.33
Blue-green unknown colony	1.8	1.33	Oocystis sp.	12.0	8.67
Chlamydomonas sp.	40.5	29.33	Oscillatoria sp.	0.9	0.67
Chroococcus limneticus	14.7	10.67	Pediastrum sp.	0.9	0.67
Chroococcus turgidus	0.9	0.67	Peridinium sp.	8.3	6.00
Crucigenia quadrata	1.8	1.33	Quadrigula lacustris	2.8	2.00
Cryptomonas sp.	12.9	9.33	Scenedesmus sp.	2.8	2.00
Cyclotella sp.	0.9	0.67	Spores	1.8	1.33
Dinobryon divergens	12.9	9.33	Tabellaria fenestrata	1.8	1.33
Fragilaria crotonensis	1.8	1.33	Tetraedron minimum	0.9	0.67
			Total	138.2	100.0

25 SEP 70 SDC 1-0

Number of forms = 32 Diversity = 3.52
Counted by: E.K.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	1.8	0.21
Aphanocapsa sp.	7.4	0.83
Chlamydomonas sp.	208.2	23.49
Chroococcus limneticus	5.5	0.62
Chroococcus sp.	7.4	0.83
Crucigenia quadrata	1.8	0.21
Cryptomonas sp.	46.1	5.20
Cyclotella sp.	84.7	9.56
Dictyosphaerium pulchellum	1.8	0.21
Dinobryon divergens	33.2	3.74
Fragilaria capucina	31.3	3.53
Fragilaria crotonensis	176.9	19.96
Fragilaria intermedia	3.7	0.42
Glceocystis sp.	3.7	0.42
Golenkinia radiata	1.8	0.21
Melosira granulata	105.0	11.85
Melosira granulata v. angustissima	9.2	1.04
Melosira islandica	3.7	0.42
Mougeotia sp.	1.8	0.21
Navicula sp.	16.6	1.87
Nitzschia sp.	14.7	1.66
Nitzschia tryblionella	1.8	0.21
Oocystis sp.	33.2	3.74
Peridinium sp.	3.7	0.42
Scenedesmus opoliensis	1.8	0.21
Scenedesmus quadricauda	1.8	0.21
Scenedesmus sp.	11.1	1.25
Stephanodiscus alpinus	1.8	0.21
Tabellaria fenestrata	59.0	6.65
Tetraedron caudatum	1.8	0.21
Tetraedron minimum	1.8	0.21
Treubaria setigerum	1.8	0.21
Total	886.1	100.0

25 SEP 70 SDC 1-1

Number of forms = 24 Diversity = 4.02
Counted by: E.K.

Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.34
Ankistrodesmus falcatus	1.8	0.68
Aphanocapsa sp.	8.3	3.05
Blue-green unknown colony	2.8	1.02
Chlamydomonas sp.	16.6	6.10
Chroococcus limneticus	10.1	3.73
Closteriopsis sp.	24.9	9.15
Crucigenia apiculata	0.9	0.34
Crucigenia quadrata	4.6	1.69
Cryptomonas sp.	12.9	4.75
Cyclotella sp.	9.2	3.39
Dinobryon divergens	30.4	11.19
Fragilaria capucina	12.0	4.41
Fragilaria crotonensis	26.7	9.83
Gloeocystis sp.	4.6	1.69
Gomphosphaeria sp.	0.9	0.34
Melosira granulata	8.3	3.05
Melosira granulata v. angustissima	31.3	11.53
Navicula radiosa	0.9	0.34
Nitzschia sp.	5.5	2.03
Oocystis sp.	24.9	9.15
Peridinium sp.	10.1	3.73
Tabellaria fenestrata	22.1	8.14
Tetraedron caudatum	0.9	0.34
Total	271.7	100.0

25 SEP 70 SDC 1-2

Number of forms = 28
Counted by: E.K.

Diversity = 3.54

Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.37
Aphanocapsa sp.	0.9	0.37
Chlamydomonas sp.	56.2	22.76
Chroococcus limneticus	7.4	2.99
Cryptomonas sp.	20.3	8.21
Cyclotella sp.	2.8	1.12
Dinobryon divergens	50.7	20.52
Fragilaria capucina	2.8	1.12
Fragilaria crotonensis	0.9	0.37
Gloeocystis sp.	14.7	5.97
Golenkinia radiata	0.9	0.37
Green colony, unknown	0.9	0.37
Green filament, unknown	1.8	0.75
Lagerheimia citriformis	0.9	0.37
Lagerheimia longiseta	10.1	4.10
Melosira granulata	11.1	4.48
Melosira granulata v. angustissima	3.7	1.49
Mougeotia sp.	0.9	0.37
Navicula sp.	0.9	0.37
Oocystis sp.	27.6	11.19
Oocystis submarina	6.4	2.61
Oscillatoria sp.	1.8	0.75
Pediastrum duplex	0.9	0.37
Peridinium sp.	16.6	6.72
Quadrigula sp.	0.9	0.37
Scenedesmus quadricauda	0.9	0.37
Scenedesmus sp.	1.8	0.75
Synedra sp.	0.9	0.37
Total	246.9	100.0

25 SEP 70 SDC 1-3

Number of forms = 28
Counted by: E.K.

Diversity = 3.38

Taxon	Cells/ml	Percent
Anabaena circinalis	1.8	0.97
Ankistrodesmus falcatus	1.4	0.73
Aphanocapsa sp.	4.6	2.42
Blue-green unknown colony	0.9	0.48
Chlamydomonas sp.	59.9	31.48
Chroococcus limneticus	18.0	9.44
Chroococcus turgidus	0.9	0.48
Closteriopsis longissima	0.5	0.24
Coelastrum sp.	0.9	0.48
Crucigenia apiculata	1.8	0.97
Crucigenia quadrata	3.7	1.94
Cryptomonas sp.	21.2	11.14
Cyclotella sp.	3.7	1.94
Dinobryon divergens	24.4	12.83
Fragilaria capucina	2.8	1.45
Gloeocystis sp.	6.9	3.63
Kirchneriella sp.	0.5	0.24
Lagerheimia longiseta	0.5	0.24
Mallomonas sp.	1.8	0.97
Melosira granulata v. angustissima	3.7	1.94
Mougeotia sp.	0.5	0.24
Oocystis sp.	22.6	11.86
Oscillatoria sp.	1.4	0.73
Peridinium sp.	2.3	1.21
Quadrigula lacustris	0.9	0.48
Stephanodiscus sp.	0.5	0.24
Tabellaria fenestrata	1.4	0.73
Tetraedron minimum	0.9	0.48
Total	190.2	100.0

25 SEP 70 SDC 2-0

Number of forms = 30
Counted by: E.K.

Diversity = 4.04

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora sp.	0.5	0.35	Golenkinia radiata	0.9	0.70
Anabaena circinalis	1.8	1.40	Melosira granulata	10.1	7.69
Aphanocapsa sp.	1.8	1.40	Melosira granulata v. angustissima	2.3	1.75
Blue-green unknown colony	1.4	1.05	Navicula sp.	0.9	0.70
Chlamydomonas sp.	13.8	10.49	Nitzschia sp.	0.5	0.35
Chroococcus sp.	4.6	3.50	Oocystis sp.	7.4	5.59
Cosmarium sp.	0.9	0.70	Pediastrum duplex	0.5	0.35
Crucigenia quadrata	1.8	1.40	Peridinium sp.	8.3	6.29
Cryptomonas sp.	7.4	5.59	Scenedesmus abundans	0.5	0.35
Cyclotella sp.	3.7	2.80	Scenedesmus quadricauda	0.9	0.70
Dinobryon divergens	10.1	7.69	Scenedesmus sp.	0.9	0.70
Fragilaria capucina	3.2	2.45	Spores	1.4	1.05
Fragilaria crotonensis	7.4	5.59	Synedra ulna v. danica	0.5	0.35
Fragilaria intermedia	0.9	0.70	Tabellaria fenestrata	7.4	5.59
Gloeocystis sp.	1.8	1.40	Tetraedron minimum	28.1	21.33
			Total	131.7	100.0

25 SEP 70 SDC 2-1

Number of forms = 36
Counted by: E.K.

Diversity = 3.71

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.25	Golenkinia radiata	0.9	0.25
Ankistrodesmus sp.	1.8	0.49	Kirchneriella sp.	0.9	0.25
Blue-green unknown colony	5.5	1.47	Lagerheimia longiseta	0.9	0.25
Chlamydomonas sp.	90.3	24.02	Mallomonas sp.	2.8	0.74
Chroococcus sp.	1.8	0.49	Melosira granulata v. angustissima	3.7	0.98
Cocconeis sp.	1.8	0.49	Melosira sp.	12.0	3.19
Cosmarium sp.	0.9	0.25	Mougeotia sp.	2.8	0.74
Crucigenia quadrata	9.2	2.45	Navicula sp.	2.8	0.74
Cryptomonas sp.	52.5	13.97	Nitzschia sp.	0.9	0.25
Cyclotella sp.	9.2	2.45	Oocystis sp.	43.3	11.52
Cymatopleura solea	0.9	0.25	Pediastrum duplex	0.9	0.25
Cymbella sp.	0.9	0.25	Pediastrum simplex	0.9	0.25
Dictyosphaerium pulchellum	0.9	0.25	Peridinium sp.	11.1	2.94
Dinobryon divergens	53.4	14.22	Scenedesmus opoliensis	1.8	0.49
Dinoflagellate cysts	0.9	0.25	Scenedesmus quadricauda	0.9	0.25
Fragilaria capucina	3.7	0.98	Stephanodiscus sp.	3.7	0.98
Fragilaria crotonensis	16.6	4.41	Synedra sp.	1.8	0.49
Gloeocystis sp.	13.8	3.68	Tabellaria fenestrata	18.4	4.90
			Total	375.8	100.0

25 SEP 70 SDC 2-2

Number of forms = 33 Diversity = 3.62
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.44	Kirchneriella sp.	0.9	0.44
Aphanocapsa sp.	5.5	2.63	Lagerheimia longiseta	1.4	0.66
Blue-green unknown colony	0.5	0.22	Melosira granulata	9.7	4.60
Chlamydomonas sp.	20.7	9.85	Nitzschia sp.	0.5	0.22
Chroococcus limneticus	10.6	5.03	Oocystis sp.	25.8	12.25
Coelastrum sp.	0.9	0.44	Oscillatoria sp.	1.8	0.88
Cosmarium sp.	1.8	0.88	Pediastrum sp.	1.4	0.66
Crucigenia apiculata	2.3	1.09	Peridinium sp.	7.4	3.50
Crucigenia quadrata	1.8	0.88	Quadrigula lacustris	0.5	0.22
Cryptomonas sp.	15.7	7.44	Scenedesmus abundans	0.5	0.22
Cyclotella sp.	1.8	0.88	Scenedesmus quadricauda	0.5	0.22
Dictyosphaerium pulchellum	0.5	0.22	Scenedesmus sp.	0.5	0.22
Dinobryon divergens	64.9	30.85	Tabellaria fenestrata	11.5	5.47
Fragilaria capucina	0.5	0.22	Tetraedron caudatum	0.5	0.22
Fragilaria crotonensis	8.3	3.94	Tetraedron minimum	1.4	0.66
Gloeocystis sp.	7.4	3.50	Treubaria setigerum	0.5	0.22
Golenkinia radiata	1.8	0.88			
			Total	210.5	100.0

25 SEP 70 SDC 2-3

Number of forms = 21 Diversity = 3.39
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	5.5	2.16	Gloeocystis sp.	13.8	5.40
Aphanocapsa sp.	7.4	2.88	Kirchneriella sp.	1.8	0.72
Chlamydomonas sp.	66.3	25.90	Lagerheimia longiseta	2.8	1.08
Chroococcus limneticus	21.2	8.27	Mougeotia sp.	0.9	0.36
Chroococcus sp.	0.9	0.36	Oocystis sp.	17.5	6.83
Cosmarium sp.	0.9	0.36	Oscillatoria sp.	0.9	0.36
Cryptomonas sp.	21.2	8.27	Peridinium sp.	11.1	4.32
Dictyosphaerium pulchellum	0.9	0.36	Scenedesmus sp.	0.9	0.36
Dinobryon divergens	47.0	18.35	Tabellaria fenestrata	6.4	2.52
Fragilaria capucina	4.6	1.80	Tetraedron minimum	1.8	0.72
Fragilaria crotonensis	22.1	8.63			
			Total	256.1	100.0

survey of September 25, 1970, continued.

25 SEP 70 SDC 2-4

Number of forms = 23 Diversity = 3.36
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	0.9	0.61	Gomphosphaeria lacustris	0.9	0.61
Aphanocapsa sp.	8.8	5.81	Lagerheimia longiseta	0.5	0.31
Blue-green unknown colony	2.8	1.83	Mougeotia sp.	0.5	0.31
Ceratium hirundinella	0.9	0.61	Oocystis sp.	27.6	18.35
Chlamydomonas sp.	31.8	21.10	Oscillatoria sp.	2.3	1.53
Chroococcus limneticus	24.9	16.51	Peridinium sp.	7.8	5.20
Chroococcus sp.	12.0	7.95	Quadrigula lacustris	1.8	1.22
Chroococcus turgidus	0.9	0.61	Scenedesmus sp.	0.5	0.31
Crucigenia quadrata	0.5	0.31	Schroederia sp.	0.9	0.61
Dinobryon divergens	13.4	8.87	Spores	0.5	0.31
Gloeocystis sp.	9.2	6.12	Tabellaria fenestrata	0.9	0.61
Golenkinia radiata	0.5	0.31			
			Total	150.6	100.0

25 SEP 70 SDC 4-0

Number of forms = 37 Diversity = 3.90
Counted by: E.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Achnanthes exigua	0.5	0.14	Melosira granulata v. angustissima	9.2	2.70
Amphora sp.	1.8	0.54	Melosira varians	1.8	0.54
Ankistrodesmus falcatus	0.9	0.27	Mougeotia sp.	1.4	0.41
Aphanocapsa sp.	1.4	0.41	Navicula sp.	6.9	2.03
Asterionella formosa	0.9	0.27	Nitzschia sp.	2.8	0.81
Blue-green unknown colony	1.4	0.41	Oestrupia zachariasi	0.9	0.27
Centric diatom, unknown	22.1	6.49	Oocystis sp.	10.6	3.11
Chlamydomonas sp.	41.0	12.03	Pediastrum sp.	0.5	0.14
Chroococcus limneticus	7.8	2.30	Peridinium sp.	17.5	5.14
Coelastrum sp.	0.5	0.14	Quadrigula lacustris	2.3	0.68
Cryptomonas sp.	21.2	6.22	Scenedesmus abundans	0.9	0.27
Cymbella sp.	0.5	0.14	Scenedesmus quadricauda	1.4	0.41
Dinobryon divergens	11.1	3.24	Scenedesmus sp.	1.4	0.41
Fragilaria brevistriata	1.8	0.54	Spores	1.8	0.54
Fragilaria capucina	27.6	8.11	Synedra acus	1.4	0.41
Fragilaria crotonensis	81.1	23.78	Synedra ulna v. danica	0.5	0.14
Fragilaria intermedia	1.8	0.54	Tabellaria fenestrata	20.7	6.08
Gloeocystis sp.	3.2	0.95	Tetraedron minimum	2.8	0.81
Melosira granulata	29.5	8.65			
			Total	340.8	100.0

25 SEP 70 SDC 4-1

Number of forms = 26
Counted by: S.W.

Diversity = 2.82

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena sp.	1.4	0.51	Green colony, unknown	0.9	0.34
Ankistrodesmus falcatus v. mirabilis	0.5	0.17	Kirchneriella sp.	0.5	0.17
Ankistrodesmus gelifactum	0.5	0.17	Lagerheimia sp.	0.5	0.17
Aphanothece sp.	0.9	0.34	Melosira sp.	1.8	0.68
Chlamydomonas sp.	3.7	1.35	Ochromonas sp.	63.1	23.18
Chroococcus sp.	4.1	1.52	Oocystis sp.	13.8	5.08
Coelastrum sp.	0.5	0.17	Oscillatoria sp.	0.5	0.17
Cryptomonas sp.	27.2	9.98	Peridinium sp.	0.5	0.17
Cyclotella sp.	0.5	0.17	Scenedesmus quadricauda	0.5	0.17
Dinobryon divergens	18.4	6.77	Scenedesmus sp.	5.1	1.86
Flagellates	6.4	2.37	Tabellaria fenestrata	4.6	1.69
Glenodinium sp.	9.2	3.38	Tetraedron minimum	0.5	0.17
Gloeocystis sp.	106.4	39.09	Tetraedron sp.	0.5	0.17
			Total	272.2	100.0

25 SEP 70 SDC 4-2

Number of forms = 32
Counted by: S.W.

Diversity = 3.54

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena sp.	1.4	0.52	Green colony, unknown	2.3	0.86
Ankistrodesmus falcatus v. mirabilis	1.8	0.69	Kirchneriella sp.	4.6	1.72
Ankistrodesmus falcatus	0.5	0.17	Lagerheimia sp.	1.4	0.52
Ankistrodesmus gelifactum	0.5	0.17	Melosira sp.	2.8	1.03
Aphanothece sp.	4.1	1.55	Ochromonas sp.	68.2	25.43
Asterionella formosa	0.9	0.34	Oedogonium sp.	1.4	0.52
Ceratium hirundinella	0.5	0.17	Oocystis sp.	17.5	6.53
Chlamydomonas sp.	18.4	6.87	Peridinium sp.	1.4	0.52
Chroococcus sp.	6.9	2.58	Scenedesmus quadricauda	1.4	0.52
Crucigenia sp.	4.6	1.72	Scenedesmus sp.	5.5	2.06
Cryptomonas sp.	12.9	4.81	Schroederia sp.	0.5	0.17
Cyclotella sp.	1.8	0.69	Sphaerocystis sp.	3.7	1.37
Dinobryon divergens	23.0	8.59	Stephanodiscus sp.	0.5	0.17
Flagellates	4.6	1.72	Tabellaria fenestrata	4.1	1.55
Glenodinium sp.	5.1	1.89	Tetraedron minimum	0.5	0.17
Gloeocystis sp.	64.5	24.06	Treubaria sp.	0.9	0.34
			Total	268.1	100.0

25 SEP 70 SDC 4-3

Number of forms = 24
Counted by: E.K.

Diversity = 3.54

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.8	1.19	Gloeocystis sp.	7.4	4.75
Aphanocapsa sp.	5.5	3.56	Golenkinia radiata	0.5	0.30
Blue-green unknown colony	0.9	0.59	Lagerheimia longiseta	0.5	0.30
Chlamydomonas sp.	18.4	11.87	Melosira sp.	4.1	2.67
Chroococcus limneticus	9.7	6.23	Mougeotia sp.	2.3	1.48
Chroococcus turgidus	1.4	0.89	Oocystis sp.	28.1	18.10
Crucigenia apiculata	1.8	1.19	Oscillatoria sp.	0.9	0.59
Crucigenia quadrata	0.5	0.30	Peridinium sp.	13.4	8.61
Cryptomonas sp.	13.8	8.90	Scenedesmus quadricauda	1.4	0.89
Desmatractum sp.	0.5	0.30	Scenedesmus sp.	0.5	0.30
Dinobryon divergens	33.6	21.66	Schroederia judayi	0.5	0.30
Fragilaria crotonensis	3.2	2.08	Tabellaria fenestrata	4.6	2.97
			Total	155.2	100.0

25 SEP 70 SDC 4-4

Number of forms = 28
Counted by: E.K.

Diversity = 3.35

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	0.9	0.37	Dinobryon divergens	7.4	2.96
Ankistrodesmus falcatus	1.4	0.55	Fragilaria crotonensis	68.2	27.36
Aphanocapsa sp.	1.4	0.55	Gloeocystis sp.	11.5	4.62
Blue-green unknown colony	1.8	0.74	Golenkinia radiata	0.9	0.37
Ceratium hirundinella	1.8	0.74	Melosira granulata	6.9	2.77
Chlamydomonas sp.	39.6	15.90	Mougeotia sp.	0.5	0.18
Chlorella sp.	2.8	1.11	Oocystis sp.	27.6	11.09
Chroococcus limneticus	19.3	7.76	Oscillatoria sp.	0.9	0.37
Chroococcus turgidus	1.4	0.55	Peridinium sp.	8.8	3.51
Coelastrum sp.	0.5	0.18	Quadrigula lacustris	0.9	0.37
Cosmarium sp.	0.5	0.18	Scenedesmus sp.	0.5	0.18
Cryptomonas sp.	35.5	14.23	Synedra ulna	0.5	0.18
Cyclotella comta	0.5	0.18	Tabellaria fenestrata	4.1	1.66
Cyclotella sp.	2.8	1.11	Tetraedron minimum	0.5	0.18
			Total	249.2	100.0

survey of September 25, 1970, continued.

25 SEP 70 SDC 7-1

Number of forms = 28
Counted by: E.K.

Diversity = 3.89

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.8	1.32	Golenkinia radiata	0.9	0.66
Ankistrodesmus falcatus	2.8	1.99	Gomphosphaeria lacustris	1.8	1.32
Aphanocapsa sp.	1.8	1.32	Lagerheimia longiseta	0.9	0.66
Blue-green unknown colony	1.8	1.32	Mougeotia sp.	0.9	0.66
Chlamydomonas sp.	20.3	14.57	Navicula sp.	0.9	0.66
Chroococcus limneticus	16.6	11.92	Nodularia sp.	0.9	0.66
Closterium sp.	0.9	0.66	Oocystis sp.	12.0	8.61
Crucigenia quadrata	0.9	0.66	Pediastrum duplex	0.9	0.66
Cryptomonas sp.	8.3	5.96	Peridinium sp.	18.4	13.25
Cyclotella sp.	1.8	1.32	Scenedesmus quadricauda	0.9	0.66
Dinobryon divergens	17.5	12.58	Synedra acus	0.9	0.66
Fragilaria capucina	5.5	3.97	Synedra ulna v. danica	0.9	0.66
Fragilaria crotonensis	11.1	7.95	Tabellaria fenestrata	5.5	3.97
Gloeocystis sp.	0.9	0.66	Tetraedron minimum	0.9	0.66
			Total	139.1	100.0

25 SEP 70 SDC 7-2

Number of forms = 27
Counted by: E.K.

Diversity = 3.52

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	1.4	0.58	Gloeocystis sp.	7.8	3.26
Ankistrodesmus falcatus	0.5	0.19	Golenkinia radiata	0.5	0.19
Aphanocapsa sp.	5.5	2.30	Gomphosphaeria lacustris	0.5	0.19
Blue-green unknown colony	0.9	0.38	Lagerheimia longiseta	2.3	0.96
Ceratium hirundinella	0.9	0.38	Melosira sp.	6.9	2.88
Chlamydomonas sp.	28.6	11.90	Mougeotia sp.	1.8	0.77
Chroococcus limneticus	10.6	4.41	Nitzschia sp.	0.5	0.19
Crucigenia apiculata	2.3	0.96	Oocystis sp.	31.3	13.05
Crucigenia quadrata	0.5	0.19	Peridinium sp.	27.2	11.32
Cryptomonas sp.	17.0	7.10	Quadrigula lacustris	0.9	0.38
Cyclotella sp.	2.3	0.96	Scenedesmus sp.	0.5	0.19
Dinobryon divergens	63.6	26.49	Synedra ulna v. danica	0.5	0.19
Fragilaria capucina	10.1	4.22	Tabellaria fenestrata	5.5	2.30
Fragilaria crotonensis	9.7	4.03			
			Total	240.0	100.0

25 SEP 70 SDC 7-3

Number of forms = 25
Counted by: S.W.

Diversity = 3.10

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena sp.	0.5	0.22	Glenodinium sp.	8.8	4.12
Ankistrodesmus falcatus v. mirabilis	1.4	0.65	Gloeocystis sp.	83.4	39.26
Ankistrodesmus gelifactum	0.5	0.22	Green colony, unknown	0.9	0.43
Aphanothece sp.	0.9	0.43	Kirchneriella sp.	0.9	0.43
Asterionella formosa	0.5	0.22	Lagerheimia sp.	0.9	0.43
Ceratium hirundinella	0.5	0.22	Melosira sp.	0.9	0.43
Chlamydomonas sp.	12.0	5.64	Ochromonas sp.	26.3	12.36
Chroococcus sp.	6.4	3.04	Oocystis sp.	17.0	8.03
Coelastrum sp.	0.5	0.22	Peridinium sp.	1.4	0.65
Cryptomonas sp.	10.6	4.99	Scenedesmus sp.	5.1	2.39
Cyclotella sp.	0.9	0.43	Tabellaria fenestrata	4.1	1.95
Dinobryon divergens	24.4	11.50	Tetraedron minimum	0.9	0.43
Flagellates	2.8	1.30			
			Total	212.3	100.0

25 SEP 70 SDC 7-4

Number of forms = 20
Counted by: E.K.

Diversity = 3.57

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena circinalis	3.7	2.47	Gloeocystis sp.	5.5	3.70
Aphanocapsa sp.	5.5	3.70	Golenkinia radiata	2.8	1.85
Chlamydomonas sp.	37.8	25.31	Lagerheimia longiseta	1.8	1.23
Chroococcus limneticus	7.4	4.94	Mougeotia sp.	2.8	1.85
Crucigenia quadrata	1.8	1.23	Oocystis sp.	13.8	9.26
Cryptomonas sp.	5.5	3.70	Oscillatoria sp.	0.9	0.62
Cyclotella sp.	0.9	0.62	Peridinium sp.	5.5	3.70
Dinobryon divergens	30.4	20.37	Spores	3.7	2.47
Fragilaria capucina	3.7	2.47	Tabellaria fenestrata	4.6	3.09
Fragilaria crotonensis	6.4	4.32	Tetraedron minimum	4.6	3.09
			Total	149.2	100.0

survey of September 25, 1970, continued.

25 SEP 70 SDC 7-5

Number of forms = 20
Counted by: E.K.

Diversity = 3.30

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	1.8	0.57	Fragilaria capucina	7.4	2.30
Chlamydomonas sp.	57.1	17.82	Fragilaria crotonensis	71.8	22.41
Chroococcus limneticus	22.1	6.90	Gloeocystis sp.	3.7	1.15
Closterium sp.	1.8	0.57	Melosira granulata	11.1	3.45
Cryptomonas sp.	9.2	2.87	Mougeotia sp.	1.8	0.57
Cyclotella sp.	5.5	1.72	Oocystis sp.	38.7	12.07
Desmatractum sp.	1.8	0.57	Oscillatoria sp.	1.8	0.57
Dictyosphaerium pulchellum	3.7	1.15	Peridinium sp.	3.7	1.15
Dinobryon divergens	55.3	17.24	Tabellaria fenestrata	18.4	5.75
Dinoflagellate cysts	1.8	0.57	Tetraedron minimum	1.8	0.57
			Total	320.6	100.0

Density (cells/ml) of the taxa of phytoplankton found in the major survey of April 1976.

14 APR 76 DC-0

Number of forms = 61
Temperature(C) = ---

Diversity = 4.16
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	3.3	0.04
Ankistrodesmus falcatus	3.3	0.04
Asterionella formosa	918.6	11.11
Centric diatom, unknown	636.7	7.70
Chromulina parvula	3.3	0.04
Chrysophycean flagellate spp.	222.2	2.69
Cryptomonas sp.	49.7	0.60
Cyclotella meneghiniana v. plana	19.9	0.24
Cyclotella meneghiniana	9.9	0.12
Cyclotella michiganiana	6.6	0.08
Cyclotella ocellata	3.3	0.04
Cyclotella sp.	36.5	0.44
Cyclotella stelligera	3.3	0.04
Cymbella sp.	3.3	0.04
Diatoma tenue v. elongatum	334.9	4.05
Dinobryon divergens	6.6	0.08
Dinobryon flagellates	49.7	0.60
Dinoflagellates	3.3	0.04
Flagellates	1057.8	12.79
Fragilaria capucina	63.0	0.76
Fragilaria crotonensis	848.9	10.26
Fragilaria intermedia	109.4	1.32
Fragilaria intermedia v. fallax	43.1	0.52
Fragilaria vaucheriae	3.3	0.04
Gloeocystis planctonica	92.9	1.12
Gloeocystis sp.	63.0	0.76
Gomphonema angustatum	3.3	0.04
Gomphonema olivaceum	3.3	0.04
Green filament, unknown	6.6	0.08
Melosira granulata	102.8	1.24
Melosira islandica	79.6	0.96
Melosira italica	175.8	2.13
Navicula cryptocephala v. intermedia	3.3	0.04
Navicula decussis	3.3	0.04
Navicula sp.	13.3	0.16
Nitzschia acicularis	39.8	0.48
Nitzschia capitellata	3.3	0.04
Nitzschia dissipata	3.3	0.04
Nitzschia paleacea	9.9	0.12
Nitzschia sp.	26.5	0.32
Nitzschia sp. #1	3.3	0.04
Ochromonas sp.	119.4	1.44
Rhizosolenia eriensis	49.7	0.60
Rhizosolenia gracilis	381.4	4.61
Scenedesmus bicellularis	46.4	0.56
Scenedesmus quadricauda	13.3	0.16
Scenedesmus sp.	53.1	0.64
Schizothrix calcicola	39.8	0.48
Stephanodiscus alpinus	3.3	0.04
Stephanodiscus hantzschii	36.5	0.44
Stephanodiscus minutus	73.0	0.88
Stephanodiscus sp.	1634.9	19.77
Stephanodiscus subtilis	119.4	1.44
Stephanodiscus tenuis	235.4	2.85
Synedra delicatissima v. angustissima	36.5	0.44
Synedra demerarae	26.5	0.32
Synedra filiformis	175.8	2.13
Synedra ostenfeldii	26.5	0.32
Synedra sp.	3.3	0.04
Synedra ulna v. chaseana	13.3	0.16
Tabellaria fenestrata v. intermedia	109.4	1.32
Total	8270.3	100.0

Major survey of April 1976, continued.

14 APR 76 DC-1

Number of forms = 62 Diversity = 4.21
Temperature(C) = 7.4 Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes sp.	3.3	0.06
Ankistrodesmus falcatus	9.9	0.17
Ankistrodesmus gelifactum	6.6	0.12
Ankistrodesmus sp.	6.6	0.12
Ankistrodesmus sp. #3	13.3	0.23
Asterionella formosa	640.0	11.24
Centric diatom, unknown	255.3	4.48
Chrysophycean flagellate spp.	179.1	3.15
Cryptomonas sp.	26.5	0.47
Cyclotella meneghiniana v. plana	6.6	0.12
Cyclotella meneghiniana	3.3	0.06
Cyclotella michiganiana	3.3	0.06
Cyclotella sp.	13.3	0.23
Cyclotella stelligera	6.6	0.12
Cymbella prostrata v. auerswaldii	3.3	0.06
Diatoma tenue v. elongatum	142.6	2.50
Dinobryon bavaricum	3.3	0.06
Dinobryon flagellates	73.0	1.28
Dinobryon sociale	6.6	0.12
Dinoflagellates	3.3	0.06
Diploneis oculata	3.3	0.06
Flagellates	1087.7	19.10
Fragilaria crotonensis	550.5	9.67
Fragilaria intermedia v. fallax	179.1	3.15
Gloeocystis planctonica	46.4	0.82
Gloeocystis sp.	66.3	1.16
Green coccoid, unknown	3.3	0.06
Melosira granulata	29.8	0.52
Melosira islandica	9.9	0.17
Melosira italica	96.2	1.69
Melosira sp.	16.6	0.29
Navicula capitata	3.3	0.06
Navicula nyassensis f. minor	3.3	0.06
Nitzschia acicularis	16.6	0.29
Nitzschia bacata	13.3	0.23
Nitzschia capitellata	3.3	0.06
Nitzschia confinis	3.3	0.06
Nitzschia dissipata	3.3	0.06
Nitzschia holsatica	26.5	0.47
Nitzschia paleacea	6.6	0.12
Nitzschia sp.	33.2	0.58
Nitzschia sp. #1	3.3	0.06
Ochromonas sp.	291.8	5.13
Rhizosolenia eriensis	59.7	1.05
Rhizosolenia gracilis	487.5	8.56
Rhoicosphenia curvata	3.3	0.06
Scenedesmus bicellularis	46.4	0.82
Scenedesmus quadricauda	26.5	0.47
Scenedesmus sp.	39.8	0.70
Schizothrix calcicola	33.2	0.58
Stephanodiscus alpinus	3.3	0.06
Stephanodiscus hantzschii	9.9	0.17
Stephanodiscus minutus	36.5	0.64
Stephanodiscus sp.	626.7	11.01
Stephanodiscus subtilis	82.9	1.46
Stephanodiscus tenuis	63.0	1.11
Synedra acus	6.6	0.12
Synedra delicatissima v. angustissima	19.9	0.35
Synedra filiformis	112.7	1.98
Synedra ostenfeldii	16.6	0.29
Synedra sp.	6.6	0.12
Tabellaria fenestrata v. intermedia	109.4	1.92
Total	5693.7	100.0

Major survey of April 1976, continued.

14 APR 76 DC-2

Number of forms = 52
Temperature(C) = 7.0

Diversity = 4.20
Counted by: S.W.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	3.3	0.09	Melosira islandica	106.1	2.96
Ankistrodesmus falcatus	29.8	0.83	Melosira italica	73.0	2.04
Ankistrodesmus sp. #3	3.3	0.09	Melosira sp.	6.6	0.19
Asterionella formosa	411.2	11.47	Navicula sp.	6.6	0.19
Centric diatom, unknown	252.0	7.03	Nitzschia acicularis	6.6	0.19
Chromulina #2	3.3	0.09	Nitzschia dissipata	3.3	0.09
Chromulina parvula	9.9	0.28	Nitzschia sp.	6.6	0.19
Chrysophycean flagellate spp.	106.1	2.96	Ochromonas sp.	195.7	5.46
Cosmarium #1	3.3	0.09	Rhizosolenia eriensis	46.4	1.30
Cryptomonas sp.	19.9	0.56	Rhizosolenia gracilis	321.7	8.97
Cyclotella meneghiniana v. plana	6.6	0.19	Scenedesmus bicellularis	13.3	0.37
Cyclotella sp.	3.3	0.09	Scenedesmus tetradesmiformis	6.6	0.19
Cyclotella stelligera	3.3	0.09	Schizothrix calcicola	69.6	1.94
Diatoma tenue v. elongatum	76.3	2.13	Stephanodiscus hantzschii	6.6	0.19
Dinobryon bavaricum	9.9	0.28	Stephanodiscus minutus	29.8	0.83
Dinobryon divergens	6.6	0.19	Stephanodiscus niagarae	3.3	0.09
Dinobryon flagellates	175.8	4.90	Stephanodiscus sp.	265.3	7.40
Dinoflagellates	3.3	0.09	Stephanodiscus sp. #5	3.3	0.09
Flagellates	603.5	16.84	Stephanodiscus subtilis	26.5	0.74
Fragilaria crotonensis	378.0	10.55	Stephanodiscus tenuis	33.2	0.93
Fragilaria intermedia	6.6	0.19	Synedra delicatissima v. angustissima	3.3	0.09
Fragilaria intermedia v. fallax	63.0	1.76	Synedra filiformis	63.0	1.76
Gloeocystis sp.	23.2	0.65	Synedra ostenfeldii	16.6	0.46
Gomphonema gracile	3.3	0.09	Synedra sp.	3.3	0.09
Green coccoid, unknown	6.6	0.19	Synedra ulna v. chaseana	9.9	0.28
Melosira granulata	26.5	0.74	Tabellaria fenestrata v. intermedia	19.9	0.56
			Total	3584.7	100.0

14 APR 76 DC-3

Number of forms = 56
Temperature(C) = 6.1

Diversity = 4.59
Counted by: N.S.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.10
Achnanthes sp.	3.3	0.10
Anacystis incerta	116.1	3.51
Ankistrodesmus falcatus	23.2	0.70
Ankistrodesmus gelifactum	6.6	0.20
Ankistrodesmus sp. #3	9.9	0.30
Asterionella formosa	358.1	10.84
Centric diatom, unknown	43.1	1.31
Chrysophycean flagellate spp.	53.1	1.61
Cosmarium #1	6.6	0.20
Cryptomonas sp.	16.6	0.50
Cyclotella meneghiniana	3.3	0.10
Cyclotella michiganiana	3.3	0.10
Cyclotella ocellata	6.6	0.20
Cyclotella sp.	6.6	0.20
Cyclotella stelligera	99.5	3.01
Diatoma tenue v. elongatum	76.3	2.31
Dinobryon divergens	9.9	0.30
Dinobryon flagellates	26.5	0.80
Dinobryon sociale	49.7	1.51
Dinobryon sp.	23.2	0.70
Dinoflagellates	13.3	0.40
Flagellates	407.9	12.35
Fragilaria crotonensis	258.7	7.83
Fragilaria intermedia	56.4	1.71
Fragilaria intermedia v. fallax	86.2	2.61
Fragilaria sp.	3.3	0.10
Gloeocystis sp.	13.3	0.40
Green cells, undetermined	3.3	0.10
Melosira granulata	16.6	0.50
Melosira islandica	33.2	1.00
Melosira italica	49.7	1.51
Navicula sp.	3.3	0.10
Nitzschia bacata	13.3	0.40
Nitzschia paleacea	6.6	0.20
Nitzschia sp. #1	3.3	0.10
Ochromonas sp.	242.1	7.33
Oscillatoria sp.	3.3	0.10
Rhizosolenia eriensis	26.5	0.80
Rhizosolenia gracilis	361.5	10.94
Scenedesmus bicellularis	39.8	1.20
Schizothrix calcicola	29.8	0.90
Stephanodiscus alpinus	3.3	0.10
Stephanodiscus hantzschii	3.3	0.10
Stephanodiscus minutus	149.2	4.52
Stephanodiscus sp.	59.7	1.81
Stephanodiscus sp. #5	3.3	0.10
Stephanodiscus subtilis	119.4	3.61
Stephanodiscus tenuis	33.2	1.00
Synedra delicatissima v. angustissima	26.5	0.80
Synedra filiformis	49.7	1.51
Synedra ostenfeldii	73.0	2.21
Synedra sp.	3.3	0.10
Synedra ulna v. chaseana	3.3	0.10
Tabellaria fenestrata v. intermedia	6.6	0.20
Ulothrix sp.	152.5	4.62
Total	3302.9	100.0

14 APR 76 DC-4

Number of forms = 50
Temperature(C) = 5.1

Diversity = 4.22
Counted by: S.K.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	3.3	0.19
Ankistrodesmus falcatus	9.9	0.56
Asterionella formosa	225.5	12.60
Chromulina parvula	6.6	0.37
Chrysophycean flagellate spp.	136.0	7.60
Cryptomonas sp.	28.2	1.58
Cyclotella atomus	1.7	0.09
Cyclotella comensis	3.3	0.19
Cyclotella meneghiniana	5.0	0.28
Cyclotella michiganiana	3.3	0.19
Cyclotella ocellata	3.3	0.19
Cyclotella sp.	8.3	0.46
Cyclotella stelligera	63.0	3.52
Diatoma tenue v. elongatum	44.8	2.50
Dinobryon divergens	19.9	1.11
Dinoflagellates	8.3	0.46
Euglena sp.	1.7	0.09
Flagellate a	1.7	0.09
Flagellates	351.5	19.65
Fragilaria crotonensis	159.2	8.90
Fragilaria pinnata	3.3	0.19
Gloeocystis planctonica	53.1	2.97
Gloeocystis sp.	5.0	0.28
Melosira granulata	73.0	4.08
Melosira islandica	14.9	0.83
Navicula cryptocephala v. intermedia	1.7	0.09
Navicula menisculus v. upsaliensis	1.7	0.09
Navicula sp.	3.3	0.19
Nitzschia bacata	8.3	0.46
Nitzschia confinis	1.7	0.09
Nitzschia dissipata	3.3	0.19
Nitzschia sp.	1.7	0.09
Nitzschia sp. #1	1.7	0.09
Ochromonas sp.	77.9	4.36
Rhizosolenia eriensis	13.3	0.74
Rhizosolenia gracilis	140.9	7.88
Schizothrix calcicola	9.9	0.56
Stephanodiscus hantzschii	33.2	1.85
Stephanodiscus minutus	69.6	3.89
Stephanodiscus sp.	1.7	0.09
Stephanodiscus sp. #5	54.7	3.06
Stephanodiscus subtilis	6.6	0.37
Stephanodiscus tenuis	36.5	2.04
Synedra delicatissima v. angustissima	34.8	1.95
Synedra demerarae	3.3	0.19
Synedra filiformis	26.5	1.48
Synedra ostenfeldii	5.0	0.28
Synedra ulna	5.0	0.28
Synedra ulna v. chaseana	5.0	0.28
Tabellaria fenestrata v. intermedia	8.3	0.46
Total	1789.0	100.0

Major survey of April 1976, continued.

14 APR 76 DC-5

Number of forms = 41 Diversity = 3.89
Temperature(C) = 6.2 Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes linearis	3.3	0.17
Amphora ovalis	3.3	0.17
Ankistrodesmus falcatus	3.3	0.17
Ankistrodesmus gelifactum	26.5	1.39
Asterionella formosa	189.0	9.93
Chrysophycean flagellate spp.	132.6	6.97
Crucigenia quadrata	53.1	2.79
Cryptomonas sp.	13.3	0.70
Cyclotella comensis	3.3	0.17
Cyclotella michiganiana	9.9	0.52
Cyclotella ocellata	13.3	0.70
Cyclotella sp.	9.9	0.52
Cyclotella stelligera	13.3	0.70
Diatoma tenue v. elongatum	99.5	5.23
Dinobryon divergens	9.9	0.52
Dinobryon flagellates	13.3	0.70
Dinoflagellates	29.8	1.57
Flagellates	514.0	27.00
Fragilaria crotonensis	6.6	0.35
Gloeocystis planctonica	59.7	3.14
Melosira granulata	119.4	6.27
Melosira italica	6.6	0.35
Nitzschia confinis	6.6	0.35
Nitzschia dissipata	3.3	0.17
Nitzschia fonticola	3.3	0.17
Nitzschia sp.	3.3	0.17
Ochromonas sp.	59.7	3.14
Peridinium sp.	3.3	0.17
Rhizosolenia eriensis	6.6	0.35
Rhizosolenia gracilis	238.8	12.54
Schizothrix calcicola	16.6	0.87
Stephanodiscus hantzschii	3.3	0.17
Stephanodiscus minutus	29.8	1.57
Stephanodiscus sp. #5	9.9	0.52
Stephanodiscus tenuis	13.3	0.70
Synedra delicatissima v. angustissima	13.3	0.70
Synedra filiformis	102.8	5.40
Synedra ostenfeldii	19.9	1.05
Synedra ulna	6.6	0.35
Synedra ulna v. chaseana	3.3	0.17
Tabellaria fenestrata v. intermedia	26.5	1.39
Total	1903.5	100.0

Major survey of April 1976, continued.

14 APR 76 DC-6

Number of forms = 33
Temperature(C) = 2.9

Diversity = 2.84
Counted by: N.S.

Taxon	Cells/ml	Percent
Anacystis incerta	16.6	1.80
Ankistrodesmus falcatus	9.9	1.08
Ankistrodesmus sp. #3	8.3	0.90
Asterionella formosa	5.0	0.54
Centric diatom, unknown	1.7	0.18
Chromulina #1	8.3	0.90
Chromulina parvula	9.9	1.08
Chrysophycean flagellate spp.	13.3	1.44
Cryptomonas sp.	14.9	1.62
Cyclotella kuetzingiana	1.7	0.18
Cyclotella michiganiana	1.7	0.18
Cyclotella ocellata	8.3	0.90
Cyclotella stelligera	44.8	4.86
Dinoflagellates	6.6	0.72
Flagellates	520.6	56.58
Fragilaria crotonensis	3.3	0.36
Gloeocystis sp.	1.7	0.18
Green coccoid, unknown	3.3	0.36
Melosira islandica	6.6	0.72
Melosira italica	31.5	3.42
Navicula cryptocephala v. veneta	1.7	0.18
Nitzschia confinis	1.7	0.18
Nitzschia dissipata	1.7	0.18
Ochromonas sp.	18.2	1.98
Rhizosolenia eriensis	1.7	0.18
Rhizosolenia gracilis	38.1	4.14
Scenedesmus bicellularis	16.6	1.80
Schizothrix calcicola	6.6	0.72
Stephanodiscus minutus	41.5	4.50
Stephanodiscus sp.	5.0	0.54
Stephanodiscus subtilis	54.7	5.95
Synedra delicatissima v. angustissima	1.7	0.18
Synedra filiformis	13.3	1.44
Total	920.2	100.0

Major survey of April 1976, continued.

14 APR 76 NDC.5-0

Number of forms = 75
Temperature(C) = ---

Diversity = 4.45
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata	3.3	0.04
Ankistrodesmus falcatus	29.8	0.39
Ankistrodesmus sp.	6.6	0.09
Ankistrodesmus sp. #3	6.6	0.09
Asterionella formosa	892.0	11.54
Centric diatom, unknown	560.4	7.25
Chromulina #1	26.5	0.34
Chromulina parvula	13.3	0.17
Chrysophycean flagellate spp.	169.1	2.19
Cladophora sp.	19.9	0.26
Closteriopsis longissima	3.3	0.04
Cocconeis placentula	3.3	0.04
Cosmarium #1	3.3	0.04
Crucigenia quadrata	13.3	0.17
Cryptomonas sp.	33.2	0.43
Cyclotella meneghiniana v. plana	33.2	0.43
Cyclotella meneghiniana	6.6	0.09
Cyclotella sp.	6.6	0.09
Cyclotella stelligera	13.3	0.17
Cymbella affinis	3.3	0.04
Diatoma tenue v. elongatum	368.1	4.76
Dinobryon bavaricum	6.6	0.09
Dinobryon flagellates	39.8	0.51
Dinobryon sociale	3.3	0.04
Dinoflagellates	3.3	0.04
Flagellates	354.8	4.59
Fragilaria capucina v. lanceolata	89.5	1.16
Fragilaria capucina	89.5	1.16
Fragilaria crotonensis	1465.7	18.96
Fragilaria intermedia	308.4	3.99
Fragilaria intermedia v. fallax	328.3	4.25
Gloeocystis planctonica	142.6	1.84
Gloeocystis sp.	169.1	2.19
Gomphonema parvulum	3.3	0.04
Lagerheimia longiseta	3.3	0.04
Mallomonas sp.	3.3	0.04
Melosira granulata	86.2	1.12
Melosira islandica	56.4	0.73
Melosira italica	63.0	0.82
Mougeotia sp.	9.9	0.13
Navicula cryptocephala	6.6	0.09
Navicula cryptocephala v. veneta	3.3	0.04
Navicula gregaria	3.3	0.04
Navicula radiosa v. tenella	3.3	0.04
Navicula sp.	13.3	0.17
Nitzschia acicularis	43.1	0.56
Nitzschia bacata	3.3	0.04
Nitzschia palea	3.3	0.04
Nitzschia sp.	19.9	0.26
Nitzschia sp. #1	3.3	0.04
Nitzschia sp. #2	9.9	0.13
Ochromonas sp.	6.6	0.09
Oscillatoria limnetica	3.3	0.04
Oscillatoria sp.	36.5	0.47
Rhizosolenia eriensis	39.8	0.51
Rhizosolenia gracilis	252.0	3.26
Scenedesmus bicellularis	26.5	0.34
Scenedesmus quadricauda	13.3	0.17
Scenedesmus sp.	13.3	0.17
Scenedesmus spinosus	6.6	0.09
Schizothrix calcicola	49.7	0.64
Stephanodiscus alpinus	6.6	0.09
Stephanodiscus hantzschii	33.2	0.43
Stephanodiscus minutus	73.0	0.94
Stephanodiscus sp.	819.1	10.60
Stephanodiscus subtilis	136.0	1.76
Stephanodiscus tenuis	222.2	2.87
Synedra delicatissima v. angustissima	16.6	0.21
Synedra filiformis	126.0	1.63
Synedra minuscula	3.3	0.04
Synedra ostenfeldii	43.1	0.56
Synedra sp.	23.2	0.30
Synedra ulna v. chaseana	26.5	0.34
Tabellaria fenestrata	16.6	0.21
Tabellaria fenestrata v. intermedia	182.4	2.36
Total	7729.8	100.0

Major survey of April 1976, continued.

14 APR 76 NOC.5-1

Number of forms = 42
Temperature(C) = 7.3

Diversity = 3.81
Counted by: N.S.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.10
Achnanthes linearis	3.3	0.10
Achnanthes sp.	3.3	0.10
Amphora ovalis v. pediculus	3.3	0.10
Amphora sp.	3.3	0.10
Anacystis incerta	497.4	14.58
Ankistrodesmus falcatus	19.9	0.58
Ankistrodesmus sp. #3	6.6	0.19
Gloeocystis sp.	109.4	3.21
Green coccoid, unknown	3.3	0.10
Melosira granulata	16.6	0.49
Melosira islandica	16.6	0.49
Melosira italica	109.4	3.21
Navicula cryptocephala v. veneta	6.6	0.19
Navicula decussis	3.3	0.10
Nitzschia acicularis	26.5	0.78
Nitzschia confinis	3.3	0.10
Nitzschia gracilis	3.3	0.10
Nitzschia paleacea	3.3	0.10
Nitzschia sp. #1	6.6	0.19
Nitzschia sp. #2	3.3	0.10
Ochromonas sp.	89.5	2.62
Oscillatoria sp.	13.3	0.39
Rhizosolenia eriensis	46.4	1.36
Rhizosolenia gracilis	371.4	10.88
Scenedesmus bicellularis	46.4	1.36
Scenedesmus quadricauda v. longispina	39.8	1.17
Scenedesmus spinosus	6.6	0.19
Schizothrix calcicola	69.6	2.04
Stephanodiscus minutus	596.9	17.49
Stephanodiscus minutus auxospore	6.6	0.19
Stephanodiscus sp.	89.5	2.62
Stephanodiscus subtilis	374.7	10.98
Stephanodiscus tenuis	86.2	2.53
Stephanodiscus tenuis auxospore	3.3	0.10
Synedra delicatissima v. angustissima	36.5	1.07
Synedra filiformis	73.0	2.14
Synedra ostenfeldii	33.2	0.97
Synedra tenera	3.3	0.10
Synedra ulna v. chaseana	9.9	0.29
Tabellaria fenestrata v. intermedia	33.2	0.97
Ulothrix sp.	530.6	15.55
Total	3412.3	100.0

Major survey of April 1976, continued.

14 APR 76 NDC.5-2

Number of forms = 54 Diversity = 4.09
Temperature(C) = 7.3 Counted by: S.K.

Taxon	Cells/ml	Percent
Asterionella formosa	971.6	13.27
Chrysophycean flagellate spp.	82.9	1.13
Cocconeis diminuta	3.3	0.05
Cryptomonas sp.	49.7	0.68
Cyclotella comensis	3.3	0.05
Cyclotella meneghiniana v. plana	3.3	0.05
Cyclotella meneghiniana	23.2	0.32
Cyclotella michiganiana	9.9	0.14
Cyclotella sp.	6.6	0.09
Cyclotella stelligera	43.1	0.59
Diatoma tenue v. elongatum	265.3	3.62
Dinobryon flagellates	73.0	1.00
Dinoflagellates	33.2	0.45
Flagellates	596.9	8.15
Fragilaria capucina	82.9	1.13
Fragilaria crotonensis	1770.8	24.19
Fragilaria intermedia	152.5	2.08
Fragilaria intermedia v. fallax	285.2	3.89
Gloeocystis planctonica	112.7	1.54
Gloeocystis sp.	19.9	0.27
Melosira granulata	53.1	0.72
Melosira islandica	23.2	0.32
Melosira italica	92.9	1.27
Navicula latens	3.3	0.05
Navicula menisculus v. upsaliensis	6.6	0.09
Navicula menisculus	3.3	0.05
Navicula sp.	3.3	0.05
Nitzschia acicularis	13.3	0.18
Nitzschia bacata	6.6	0.09
Nitzschia confinis	6.6	0.09
Nitzschia dissipata	3.3	0.05
Nitzschia fonticola	3.3	0.05
Nitzschia paleacea	3.3	0.05
Nitzschia sp.	3.3	0.05
Nitzschia sp. #2	19.9	0.27
Ochromonas sp.	165.8	2.26
Rhizosolenia eriensis	16.6	0.23
Rhizosolenia gracilis	510.7	6.97
Schizothrix calcicola	76.3	1.04
Stephanodiscus hantzschii	43.1	0.59
Stephanodiscus minutus	149.2	2.04
Stephanodiscus sp.	13.3	0.18
Stephanodiscus sp. #5	9.9	0.14
Stephanodiscus subtilis	195.7	2.67
Stephanodiscus tenuis	454.3	6.20
Synedra delicatissima v. angustissima	66.3	0.91
Synedra demerarae	6.6	0.09
Synedra filiformis	73.0	1.00
Synedra ostenfeldii	76.3	1.04
Synedra tenera	13.3	0.18
Synedra ulna	3.3	0.05
Synedra ulna v. chaseana	3.3	0.05
Tabellaria fenestrata v. intermedia	185.7	2.54
Ulothrix sp.	424.5	5.80
Total	7321.9	100.0

14 APR 76 NDC 1-0

Number of forms = 55
Temperature(C) = ---

Diversity = 3.90
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes sp.	6.6	0.11
Anacystis thermalis	13.3	0.22
Ankistrodesmus falcatus	9.9	0.16
Asterionella formosa	961.7	15.63
Chrysophycean flagellate spp.	39.8	0.65
Cryptomonas sp.	13.3	0.22
Cyclotella comensis	6.6	0.11
Cyclotella meneghiniana v. plana	13.3	0.22
Cyclotella meneghiniana	6.6	0.11
Cyclotella michiganiana	3.3	0.05
Cyclotella ocellata	3.3	0.05
Cyclotella stelligera	19.9	0.32
Diatoma tenue v. elongatum	404.6	6.57
Dinobryon divergens	6.6	0.11
Dinoflagellates	9.9	0.16
Flagellates	378.0	6.14
Fragilaria capucina	202.3	3.29
Fragilaria construens v. minuta	3.3	0.05
Fragilaria crotonensis	1472.4	23.92
Fragilaria intermedia	23.2	0.38
Fragilaria intermedia v. fallax	66.3	1.08
Gloeocystis planctonica	9.9	0.16
Gloeocystis sp.	3.3	0.05
Melosira granulata	136.0	2.21
Melosira italica	43.1	0.70
Navicula capitata v. luneburgensis	3.3	0.05
Navicula latens	6.6	0.11
Navicula sp.	3.3	0.05
Nitzschia #19	3.3	0.05
Nitzschia acicularis	16.6	0.27
Nitzschia acuta	3.3	0.05
Nitzschia bacata	16.6	0.27
Nitzschia dissipata	3.3	0.05
Nitzschia palea	3.3	0.05
Nitzschia paleacea	3.3	0.05
Nitzschia recta	3.3	0.05
Ochromonas sp.	139.3	2.26
Oscillatoria sp.	9.9	0.16
Rhizosolenia eriensis	16.6	0.27
Rhizosolenia gracilis	215.5	3.50
Scenedesmus quadricauda	39.8	0.65
Schizothrix calcicola	46.4	0.75
Stephanodiscus hantzschii	39.8	0.65
Stephanodiscus minutus	308.4	5.01
Stephanodiscus sp. #5	9.9	0.16
Stephanodiscus subtilis	550.5	8.94
Stephanodiscus tenuis	480.8	7.81
Synedra delicatissima v. angustissima	49.7	0.81
Synedra filiformis	82.9	1.35
Synedra ostenfeldii	59.7	0.97
Synedra tenera	23.2	0.38
Synedra ulna	3.3	0.05
Synedra ulna v. chaseana	9.9	0.16
Tabellaria fenestrata v. intermedia	132.6	2.16
Ulothrix sp.	13.3	0.22
Total	6154.7	100.0

Major survey of April 1976, continued.

14 APR 76 NDC 1-1

Number of forms = 52
Temperature(C) = 7.1

Diversity = 4.39
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	23.2	0.47	Nitzschia acicularis	13.3	0.27
Ankistrodesmus gelifactum	6.6	0.14	Nitzschia bacata	3.3	0.07
Asterionella formosa	543.8	11.12	Nitzschia dissipata	3.3	0.07
Chrysophycean flagellate spp.	192.3	3.93	Nitzschia paleacea	3.3	0.07
Cladophora sp.	29.8	0.61	Nitzschia sp.	3.3	0.07
Cocconeis diminuta	3.3	0.07	Nitzschia sp. #2	13.3	0.27
Cryptomonas sp.	66.3	1.36	Ochromonas sp.	195.7	4.00
Cyclotella comensis	13.3	0.27	Rhizosolenia eriensis	23.2	0.47
Cyclotella meneghiniana v. plana	6.6	0.14	Rhizosolenia gracilis	255.3	5.22
Cyclotella meneghiniana	23.2	0.47	Scenedesmus opoliensis	26.5	0.54
Cyclotella michiganiana	6.6	0.14	Schizothrix calcicola	39.8	0.81
Cyclotella ocellata	3.3	0.07	Stephanodiscus alpinus	3.3	0.07
Cyclotella stelligera	19.9	0.41	Stephanodiscus hantzschii	66.3	1.36
Diatoma tenue v. elongatum	285.2	5.83	Stephanodiscus minutus	119.4	2.44
Dinobryon divergens	6.6	0.14	Stephanodiscus sp.	16.6	0.34
Dinobryon flagellates	59.7	1.22	Stephanodiscus sp. #5	29.8	0.61
Dinoflagellates	76.3	1.56	Stephanodiscus subtilis	82.9	1.69
Flagellate a	3.3	0.07	Stephanodiscus tenuis	262.0	5.36
Flagellates	560.4	11.46	Synedra delicatissima v. angustissima	36.5	0.75
Fragilaria crotonensis	852.2	17.42	Synedra filiformis	46.4	0.95
Fragilaria intermedia v. fallax	175.8	3.59	Synedra ostenfeldii	23.2	0.47
Fragilaria pinnata	3.3	0.07	Synedra tenera	9.9	0.20
Gloeocystis planctonica	172.4	3.53	Synedra ulna	6.6	0.14
Gloeocystis sp.	23.2	0.47	Synedra ulna v. chaseana	6.6	0.14
Melosira granulata	76.3	1.56	Tabellaria fenestrata v. intermedia	132.6	2.71
Melosira italica	79.6	1.63	Ulothrix sp.	155.9	3.19
			Total	4891.3	100.0

14 APR 76 NDC 1-2

Number of forms = 47
Temperature(C) = 7.0

Diversity = 4.34
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei	3.3	0.14
Anacystis thermalis	13.3	0.58
Asterionella formosa	205.6	8.99
Centric diatom, unknown	208.9	9.13
Chrysophycean flagellate spp.	96.2	4.20
Cryptomonas sp.	19.9	0.87
Cyclotella ocellata	3.3	0.14
Cyclotella sp.	9.9	0.43
Cyclotella stelligera	6.6	0.29
Diatoma tenue v. elongatum	46.4	2.03
Dinobryon bavaricum	39.8	1.74
Dinobryon divergens	36.5	1.59
Dinobryon flagellates	69.6	3.04
Dinoflagellates	3.3	0.14
Flagellates	338.2	14.78
Fragilaria capucina	49.7	2.17
Fragilaria crotonensis	212.2	9.28
Fragilaria intermedia	59.7	2.61
Fragilaria sp.	3.3	0.14
Gloeocystis planctonica	19.9	0.87
Gloeocystis sp.	16.6	0.72
Green filament, unknown	46.4	2.03
Melosira granulata	3.3	0.14
Melosira islandica	19.9	0.87
Melosira italica	23.2	1.01
Nitzschia acicularis	3.3	0.14
Nitzschia bacata	3.3	0.14
Nitzschia sp.	13.3	0.58
Ochromonas sp.	63.0	2.75
Oscillatoria sp.	3.3	0.14
Rhizosolenia eriensis	6.6	0.29
Rhizosolenia gracilis	202.3	8.84
Rhoicosphenia curvata	3.3	0.14
Scenedesmus bicellularis	6.6	0.29
Scenedesmus sp.	6.6	0.29
Schizothrix calcicola	33.2	1.45
Stephanodiscus hantzschii	3.3	0.14
Stephanodiscus minutus	9.9	0.43
Stephanodiscus sp.	245.4	10.72
Stephanodiscus subtilis	16.6	0.72
Stephanodiscus tenuis	33.2	1.45
Surirella angusta	3.3	0.14
Synedra delicatissima v. angustissima	9.9	0.43
Synedra filiformis	36.5	1.59
Synedra ostenfeldii	13.3	0.58
Synedra ulna v. chaseana	3.3	0.14
Tabellaria fenestrata v. intermedia	13.3	0.58
Total	2288.1	100.0

Major survey of April 1976, continued.

14 APR 76 NDC 2-0

Number of forms = 65
Temperature(C) = ---

Diversity = 4.62
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes hauckiana v. rostrata	3.3	0.05
Achnanthes lanceolata v. dubia	3.3	0.05
Achnanthes sp.	3.3	0.05
Anacystis incerta	285.2	4.01
Ankistrodesmus falcatus	29.8	0.42
Asterionella formosa	762.7	10.74
Centric diatom, unknown	514.0	7.24
Chromulina #1	9.9	0.14
Chromulina parvula	3.3	0.05
Chrysophycean flagellate spp.	225.5	3.17
Cocconeis placentula v. lineata	3.3	0.05
Cryptomonas sp.	39.8	0.56
Cyclotella meneghiniana v. plana	26.5	0.37
Cyclotella meneghiniana	9.9	0.14
Cyclotella michiganiana	6.6	0.09
Cyclotella sp.	9.9	0.14
Diatoma tenue v. elongatum	288.5	4.06
Dinobryon bavaricum	3.3	0.05
Dinobryon divergens	59.7	0.84
Dinobryon flagellates	76.3	1.07
Dinobryon sociale	3.3	0.05
Dinoflagellates	13.3	0.19
Flagellates	1031.3	14.52
Fragilaria capucina	112.7	1.59
Fragilaria crotonensis	427.8	6.02
Fragilaria intermedia	122.7	1.73
Fragilaria intermedia v. fallax	132.6	1.87
Fragilaria sp.	23.2	0.33
Fragilaria vaucheriae	3.3	0.05
Gloeocystis planctonica	96.2	1.35
Gloeocystis sp.	159.2	2.24
Gomphonema olivaceum	3.3	0.05
Gomphonema sp.	3.3	0.05
Green filament, unknown	92.9	1.31
Melosira granulata	73.0	1.03
Melosira islandica	82.9	1.17
Melosira italica	149.2	2.10
Melosira sp.	16.6	0.23
Mougeotia sp.	6.6	0.09
Navicula cryptocephala v. intermedia	3.3	0.05
Navicula sp.	16.6	0.23
Nitzschia acicularis	19.9	0.28
Nitzschia bacata	3.3	0.05
Nitzschia sp.	9.9	0.14
Nitzschia sp. #2	9.9	0.14
Ochromonas sp.	99.5	1.40
Oscillatoria sp.	9.9	0.14
Rhizosolenia eriensis	23.2	0.33
Rhizosolenia gracilis	255.3	3.59
Scenedesmus bicellularis	26.5	0.37
Scenedesmus quadricauda	39.8	0.56
Scenedesmus sp.	39.8	0.56
Schizothrix calcicola	172.4	2.43
Stephanodiscus hantzschii	6.6	0.09
Stephanodiscus minutus	46.4	0.65
Stephanodiscus sp.	759.4	10.69
Stephanodiscus subtilis	212.2	2.99
Stephanodiscus tenuis	126.0	1.77
Synedra delicatissima v. angustissima	23.2	0.33
Synedra filiformis	155.9	2.19
Synedra ostenfeldii	43.1	0.61
Synedra sp.	6.6	0.09
Synedra ulna	6.6	0.09
Tabellaria fenestrata	9.9	0.14
Tabellaria fenestrata v. intermedia	59.7	0.84
Total	7103.1	100.0

Major survey of April 1976, continued.

14 APR 76 NDC 2-1

Number of forms = 55
Temperature(C) = 7.5

Diversity = 4.22
Counted by: S.W.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	3.3	0.06
Asterionella formosa	656.6	12.32
Centric diatom, unknown	301.8	5.66
Chrysophycean flagellate spp.	205.6	3.86
Closteriopsis longissima	3.3	0.06
Cryptomonas sp.	53.1	1.00
Cyclotella comensis	3.3	0.06
Cyclotella meneghiniana v. plana	13.3	0.25
Cyclotella meneghiniana	6.6	0.12
Cyclotella michiganiana	3.3	0.06
Cyclotella sp.	23.2	0.44
Diatoma tenue v. elongatum	152.5	2.86
Dinobryon flagellates	82.9	1.56
Flagellates	626.7	11.76
Fragilaria capucina v. lanceolata	99.5	1.87
Fragilaria capucina	3.3	0.06
Fragilaria crotonensis	1008.1	18.92
Fragilaria intermedia	29.8	0.56
Fragilaria intermedia v. fallax	175.8	3.30
Gloeocystis sp.	46.4	0.87
Gomphonema parvulum	3.3	0.06
Melosira granulata	73.0	1.37
Melosira islandica	46.4	0.87
Melosira italica	53.1	1.00
Melosira sp.	3.3	0.06
Navicula cryptocephala	3.3	0.06
Navicula gregaria	3.3	0.06
Navicula platystoma v. pantocsekii	3.3	0.06
Navicula sp.	9.9	0.19
Nitzschia acicularis	26.5	0.50
Nitzschia acuta	3.3	0.06
Nitzschia bacata	3.3	0.06
Nitzschia paleacea	3.3	0.06
Nitzschia sp.	23.2	0.44
Nitzschia sp. #2	3.3	0.06
Ochromonas sp.	96.2	1.80
Oscillatoria sp.	9.9	0.19
Rhizosolenia eriensis	6.6	0.12
Rhizosolenia gracilis	295.1	5.54
Scenedesmus bicellularis	6.6	0.12
Scenedesmus quadricauda	13.3	0.25
Scenedesmus sp.	13.3	0.25
Schizothrix calcicola	92.9	1.74
Stephanodiscus hantzschii	9.9	0.19
Stephanodiscus minutus	39.8	0.75
Stephanodiscus sp.	500.7	9.40
Stephanodiscus subtilis	66.3	1.24
Stephanodiscus tenuis	76.3	1.43
Synedra delicatissima v. angustissima	29.8	0.56
Synedra filiformis	79.6	1.49
Synedra ostenfeldii	29.8	0.56
Synedra sp.	6.6	0.12
Synedra ulna v. chaseana	16.6	0.31
Tabellaria fenestrata	19.9	0.37
Tabellaria fenestrata v. intermedia	159.2	2.99
Total	5329.0	100.0

Major survey of April 1976, continued.

14 APR 76 NDC 2-3

Number of forms = 59
Temperature(C) = 6.0

Diversity = 4.22
Counted by: S.W.

Taxon	Cells/ml	Percent
Anacystis incerta	994.8	17.29
Ankistrodesmus falcatus	26.5	0.46
Asterionella formosa	414.5	7.20
Centric diatom, unknown	169.1	2.94
Chromulina #1	6.6	0.12
Chromulina parvula	6.6	0.12
Chrysophycean flagellate spp.	126.0	2.19
Crucigenia quadrata	26.5	0.46
Cryptomonas sp.	19.9	0.35
Cyclotella comensis	3.3	0.06
Cyclotella meneghiniana	3.3	0.06
Cyclotella michiganiana	3.3	0.06
Cyclotella ocellata	3.3	0.06
Cyclotella sp.	26.5	0.46
Diatoma tenue v. elongatum	99.5	1.73
Dinobryon bavaricum	76.3	1.33
Dinobryon divergens	23.2	0.40
Dinobryon flagellates	155.9	2.71
Dinobryon sociale	3.3	0.06
Dinoflagellates	6.6	0.12
Flagellates	1091.0	18.96
Fragilaria crotonensis	407.9	7.09
Fragilaria intermedia v. fallax	112.7	1.96
Fragilaria vaucheriae	3.3	0.06
Gloeocystis planctonica	112.7	1.96
Gloeocystis sp.	19.9	0.35
Gomphosphaeria lacustris	331.6	5.76
Melosira granulata	3.3	0.06
Melosira islandica	66.3	1.15
Melosira italica	96.2	1.67
Melosira sp.	3.3	0.06
Nitzschia acicularis	6.6	0.12
Nitzschia fonticola	6.6	0.12
Nitzschia sigmoidea	3.3	0.06
Nitzschia sp.	9.9	0.17
Nitzschia sp. #2	3.3	0.06
Ochromonas sp.	152.5	2.65
Oscillatoria retzii	16.6	0.29
Oscillatoria sp.	16.6	0.29
Rhizosolenia eriensis	19.9	0.35
Rhizosolenia gracilis	407.9	7.09
Scenedesmus bicellularis	39.8	0.69
Scenedesmus sp.	6.6	0.12
Schizothrix calcicola	112.7	1.96
Stephanodiscus alpinus	3.3	0.06
Stephanodiscus hantzschii	16.6	0.29
Stephanodiscus minutus	49.7	0.86
Stephanodiscus sp.	195.7	3.40
Stephanodiscus subtilis	26.5	0.46
Stephanodiscus tenuis	16.6	0.29
Synedra delicatissima v. angustissima	16.6	0.29
Synedra filiformis	49.7	0.86
Synedra ostenfeldii	36.5	0.63
Synedra sp.	3.3	0.06
Synedra tenera	3.3	0.06
Synedra ulna	3.3	0.06
Synedra ulna v. chaseana	3.3	0.06
Tabellaria fenestrata	3.3	0.06
Tabellaria fenestrata v. intermedia	79.6	1.38
Total	5753.4	100.0

14 APR 76 NDC 4-0

Number of forms = 50
Temperature(C) = ---

Diversity = 4.28
Counted by: S.W.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	13.3	0.33
Ankistrodesmus sp.	9.9	0.25
Asterionella formosa	484.2	12.18
Caloneis ventricosa v. minuta	3.3	0.08
Centric diatom, unknown	275.2	6.92
Chrysophycean flagellate spp.	82.9	2.09
Cocconeis diminuta	3.3	0.08
Cryptomonas sp.	9.9	0.25
Cyclotella meneghiniana v. plana	13.3	0.33
Cyclotella sp.	16.6	0.42
Cyclotella stelligera	13.3	0.33
Diatoma tenue v. elongatum	142.6	3.59
Diatoma vulgare	3.3	0.08
Dinobryon bavaricum	36.5	0.92
Dinobryon flagellates	59.7	1.50
Dinobryon sociale	3.3	0.08
Dinoflagellates	6.6	0.17
Flagellates	321.7	8.09
Fragilaria capucina v. lanceolata	26.5	0.67
Fragilaria capucina	59.7	1.50
Fragilaria crotonensis	643.3	16.18
Fragilaria intermedia v. fallax	6.6	0.17
Gloeocystis planctonica	6.6	0.17
Gloeocystis sp.	36.5	0.92
Melosira granulata	33.2	0.83
Melosira islandica	43.1	1.08
Melosira italica	49.7	1.25
Melosira sp.	6.6	0.17
Navicula capitata v. luneburgensis	3.3	0.08
Navicula radiosa v. tenella	3.3	0.08
Navicula sp.	3.3	0.08
Nitzschia acicularis	19.9	0.50
Nitzschia spiculoides	3.3	0.08
Nitzschia sp.	16.6	0.42
Ochromonas sp.	86.2	2.17
Oscillatoria sp.	9.9	0.25
Rhizosolenia eriensis	16.6	0.42
Rhizosolenia gracilis	145.9	3.67
Scenedesmus bicellularis	6.6	0.17
Schizothrix calcicola	99.5	2.50
Stephanodiscus hantzschii	39.8	1.00
Stephanodiscus minutus	49.7	1.25
Stephanodiscus sp.	537.2	13.51
Stephanodiscus subtilis	132.6	3.34
Stephanodiscus tenuis	99.5	2.50
Synedra delicatissima v. angustissima	13.3	0.33
Synedra filiformis	122.7	3.09
Synedra ostenfeldii	13.3	0.33
Tabellaria fenestrata v. intermedia	139.3	3.50
Tetraedron minimum	3.3	0.08
Total	3976.0	100.0

14 APR 76 NDC 4-1

Number of forms = 55
Temperature(C) = 7.0

Diversity = 4.32
Counted by: N.S.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	3.3	0.06
Anacystis incerta	265.3	4.93
Anacystis thermalis	3.3	0.06
Ankistrodesmus falcatus	13.3	0.25
Asterionella formosa	504.1	9.37
Centric diatom, unknown	66.3	1.23
Chromulina #1	13.3	0.25
Chromulina parvula	43.1	0.80
Chrysophycean flagellate spp.	145.9	2.71
Cryptomonas sp.	19.9	0.37
Cyclotella meneghiniana	9.9	0.18
Cyclotella sp.	6.6	0.12
Cyclotella stelligera	3.3	0.06
Diatoma tenue v. elongatum	89.5	1.66
Dinobryon bavaricum	13.3	0.25
Dinobryon flagellates	6.6	0.12
Dinobryon sociale	3.3	0.06
Dinoflagellates	16.6	0.31
Flagellates	434.4	8.07
Fragilaria capucina	36.5	0.68
Fragilaria crotonensis	984.9	18.30
Fragilaria intermedia	136.0	2.53
Fragilaria intermedia v. fallax	23.2	0.43
Gloeocystis sp.	23.2	0.43
Gomphosphaeria lacustris	663.2	12.32
Green filament, unknown	33.2	0.62
Melosira granulata	19.9	0.37
Melosira islandica	43.1	0.80
Melosira italica	119.4	2.22
Mougeotia sp.	9.9	0.18
Navicula sp.	3.3	0.06
Nitzschia acicularis	6.6	0.12
Nitzschia bacata	6.6	0.12
Nitzschia closterium	3.3	0.06
Nitzschia paleacea	3.3	0.06
Nitzschia sp.	16.6	0.31
Nitzschia sp. #2	3.3	0.06
Ochromonas sp.	89.5	1.66
Oscillatoria sp.	13.3	0.25
Rhizosolenia eriensis	13.3	0.25
Rhizosolenia gracilis	199.0	3.70
Scenedesmus bicellularis	19.9	0.37
Schizothrix calcicola	73.0	1.36
Sphaerocystis sp.	66.3	1.23
Stephanodiscus minutus	344.9	6.41
Stephanodiscus sp.	195.7	3.64
Stephanodiscus subtilis	265.3	4.93
Stephanodiscus tenuis	106.1	1.97
Synedra delicatissima v. angustissima	39.8	0.74
Synedra filiformis	63.0	1.17
Synedra ostenfeldii	13.3	0.25
Synedra sp.	3.3	0.06
Synedra tenera	3.3	0.06
Synedra ulna v. chaseana	13.3	0.25
Tabellaria fenestrata v. intermedia	63.0	1.17
Total	5382.0	100.0

14 APR 76 NDC 4-3

Number of forms = 48
Temperature(C) = 5.0

Diversity = 3.90
Counted by: S.K.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	11.6	0.49
Ankistrodesmus sp. #3	9.9	0.42
Asterionella formosa	175.8	7.38
Chromulina #1	9.9	0.42
Chromulina parvula	9.9	0.42
Chrysophycean flagellate spp.	97.8	4.11
Crucigenia quadrata	19.9	0.84
Cryptomonas sp.	26.5	1.11
Cyclotella comta	1.7	0.07
Cyclotella michiganiana	5.0	0.21
Cyclotella ocellata	8.3	0.35
Cyclotella stelligera	34.8	1.46
Diatoma tenue v. elongatum	23.2	0.97
Dinobryon flagellates	54.7	2.30
Dinoflagellates	49.7	2.09
Flagellates	671.5	28.20
Fragilaria capucina	71.3	2.99
Fragilaria intermedia v. fallax	11.6	0.49
Fragilaria pinnata	1.7	0.07
Fragilaria pinnata v. lancettula	1.7	0.07
Gloeocystis planctonica	26.5	1.11
Gloeocystis sp.	1.7	0.07
Green filament, unknown	36.5	1.53
Melosira granulata	61.3	2.58
Melosira islandica	6.6	0.28
Melosira italica	58.0	2.44
Navicula anglica	1.7	0.07
Navicula sp.	1.7	0.07
Nitzschia bacata	5.0	0.21
Nitzschia dissipata	1.7	0.07
Nitzschia paleacea	1.7	0.07
Ochromonas sp.	74.6	3.13
Oscillatoria retzii	1.7	0.07
Oscillatoria sp.	1.7	0.07
Rhizosolenia eriensis	9.9	0.42
Rhizosolenia gracilis	162.5	6.82
Schizothrix calcicola	19.9	0.84
Stephanodiscus hantzschii	1.7	0.07
Stephanodiscus minutus	39.8	1.67
Stephanodiscus subtilis	9.9	0.42
Stephanodiscus tenuis	24.9	1.04
Surirella ovata v. pinnata	1.7	0.07
Synedra delicatissima v. angustissima	18.2	0.77
Synedra filiformis	33.2	1.39
Synedra ostenfeldii	18.2	0.77
Synedra ulna v. chaseana	3.3	0.14
Tabellaria fenestrata v. intermedia	39.8	1.67
Ulothrix sp.	421.1	17.69
Total	2381.0	100.0

14 APR 76 NDC 4-4

Number of forms = 32
Temperature (C) = 2.9

Diversity = 2.66
Counted by: S.K.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	16.6	1.13
Chromulina #1	8.3	0.57
Chrysophycean flagellate spp.	77.9	5.32
Cryptomonas sp.	3.3	0.23
Cyclotella comta	5.0	0.34
Cyclotella michiganiana	1.7	0.11
Cyclotella ocellata	8.3	0.57
Cyclotella stelligera	87.9	6.00
Dinoflagellates	29.8	2.04
Flagellates	842.3	57.53
Gloeocystis sp.	9.9	0.68
Melosira distans v. alpigena	6.6	0.45
Melosira granulata	16.6	1.13
Melosira islandica	5.0	0.34
Melosira italica	26.5	1.81
Nitzschia bacata	3.3	0.23
Nitzschia confinis	1.7	0.11
Nitzschia dissipata	3.3	0.23
Nitzschia sp. #1	1.7	0.11
Ochromonas sp.	64.7	4.42
Rhizosolenia gracilis	31.5	2.15
Schizothrix calcicola	1.7	0.11
Stephanodiscus hantzschii	1.7	0.11
Stephanodiscus minutus	21.6	1.47
Stephanodiscus sp. #5	5.0	0.34
Stephanodiscus subtilis	18.2	1.25
Stephanodiscus tenuis	3.3	0.23
Synedra delicatissima v. angustissima	6.6	0.45
Synedra filiformis	26.5	1.81
Synedra ostenfeldii	11.6	0.79
Synedra ulna	1.7	0.11
Ulothrix sp.	114.4	7.81
Total	1464.1	100.0

Major survey of April 1976, continued.

14 APR 76 NDC 7-1

Number of forms = 64
Temperature(C) = 9.5

Diversity = 4.15
Counted by: N.S.

Taxon	Cells/ml	Percent
Achnanthes detha	3.3	0.05
Ankistrodesmus falcatus	86.2	1.21
Ankistrodesmus setigerus	3.3	0.05
Asterionella formosa	679.8	9.55
Centric diatom, unknown	69.6	0.98
Chromulina #1	49.7	0.70
Chromulina parvula	63.0	0.88
Chrysophycean flagellate spp.	444.4	6.24
Crucigenia quadrata	13.3	0.19
Cryptomonas sp.	36.5	0.51
Cyclotella meneghiniana	9.9	0.14
Cyclotella ocellata	6.6	0.09
Cyclotella stelligera	16.6	0.23
Diatoma tenue v. elongatum	185.7	2.61
Dinobryon bavaricum	9.9	0.14
Dinobryon sociale	3.3	0.05
Dinoflagellates	33.2	0.47
Flagellates	895.4	12.58
Fragilaria capucina	29.8	0.42
Fragilaria crotonensis	1223.7	17.19
Fragilaria intermedia	89.5	1.26
Fragilaria intermedia v. fallax	132.6	1.86
Fragilaria sp.	3.3	0.05
Gloeocystis planctonica	39.8	0.56
Gloeocystis sp.	59.7	0.84
Green cells, undetermined	3.3	0.05
Green coccoid, unknown	3.3	0.05
Melosira granulata	39.8	0.56
Melosira islandica	46.4	0.65
Melosira italica	59.7	0.84
Navicula gregaria	3.3	0.05
Navicula menisculus v. upsaliensis	3.3	0.05
Navicula radiosa v. tenella	3.3	0.05
Nitzschia acicularis	16.6	0.23
Nitzschia kuetzingiana	3.3	0.05
Nitzschia linearis	9.9	0.14
Nitzschia palea	3.3	0.05
Nitzschia paleacea	9.9	0.14
Nitzschia spiculoides	3.3	0.05
Nitzschia sp. #10	9.9	0.14
Ochromonas sp.	96.2	1.35
Oscillatoria limnetica	9.9	0.14
Oscillatoria retzii	3.3	0.05
Oscillatoria sp.	19.9	0.28
Rhizosolenia eriensis	29.8	0.42
Rhizosolenia gracilis	391.3	5.50
Scenedesmus bicellularis	49.7	0.70
Scenedesmus quadricauda v. longispina	43.1	0.61
Scenedesmus sp.	6.6	0.09
Schizothrix calcicola	165.8	2.33
Stephanodiscus alpinus	3.3	0.05
Stephanodiscus hantzschii	9.9	0.14
Stephanodiscus minutus	580.3	8.15
Stephanodiscus sp.	59.7	0.84
Stephanodiscus sp. #5	3.3	0.05
Stephanodiscus subtilis	994.8	13.97
Stephanodiscus tenuis	46.4	0.65
Synedra delicatissima v. angustissima	9.9	0.14
Synedra filiformis	119.4	1.68
Synedra ostenfeldii	33.2	0.47
Synedra tenera	3.3	0.05
Synedra ulna v. chaseana	6.6	0.09
Tabellaria fenestrata	9.9	0.14
Tabellaria fenestrata v. intermedia	16.6	0.23
Total	7119.6	100.0

Major survey of April 1976, continued.

14 APR 76 NDC 7-3

Number of forms = 62
Temperature(C) = 9.5

Diversity = 4.28
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei	1.7	0.03
Achnanthes clevei v. rostrata	1.7	0.03
Achnanthes lanceolata v. elliptica	1.7	0.03
Ankistrodesmus falcatus	41.5	0.75
Ankistrodesmus sp. #3	3.3	0.06
Asterionella formosa	386.3	6.99
Centric diatom, unknown	800.8	14.50
Chrysophycean flagellate spp.	363.1	6.57
Cryptomonas sp.	56.4	1.02
Cyclotella comensis	1.7	0.03
Cyclotella meneghiniana v. plana	6.6	0.12
Cyclotella michiganiana	3.3	0.06
Cyclotella ocellata	1.7	0.03
Cyclotella sp.	13.3	0.24
Diatoma tenue v. elongatum	102.8	1.86
Dinobryon bavaricum	9.9	0.18
Dinobryon flagellates	92.9	1.68
Dinoflagellates	11.6	0.21
Flagellates	885.4	16.03
Fragilaria construens v. binodis	1.7	0.03
Fragilaria crotonensis	431.1	7.81
Fragilaria intermedia	31.5	0.57
Fragilaria intermedia v. fallax	139.3	2.52
Fragilaria sp.	3.3	0.06
Gloeocystis planctonica	19.9	0.36
Gloeocystis sp.	77.9	1.41
Gomphonema olivaceum	1.7	0.03
Melosira granulata	61.3	1.11
Melosira islandica	66.3	1.20
Melosira italica	81.2	1.47
Meridion circulare v. constrictum	1.7	0.03
Navicula cryptocephala	3.3	0.06
Navicula cryptocephala v. veneta	1.7	0.03
Navicula sp.	8.3	0.15
Nitzschia acicularis	16.6	0.30
Nitzschia bacata	6.6	0.12
Nitzschia paleacea	8.3	0.15
Nitzschia spiculoides	1.7	0.03
Nitzschia sp.	21.6	0.39
Nitzschia sp. #10	1.7	0.03
Ochromonas sp.	194.0	3.51
Oscillatoria sp.	5.0	0.09
Peridinium sp.	1.7	0.03
Rhizosolenia eriensis	19.9	0.36
Rhizosolenia gracilis	235.4	4.26
Scenedesmus bicellularis	41.5	0.75
Scenedesmus bijuga	16.6	0.30
Scenedesmus quadricauda	6.6	0.12
Scenedesmus sp.	44.8	0.81
Schizothrix calcicola	81.2	1.47
Stephanodiscus hantzschii	14.9	0.27
Stephanodiscus minutus	34.8	0.63
Stephanodiscus sp.	577.0	10.45
Stephanodiscus subtilis	182.4	3.30
Stephanodiscus tenuis	121.0	2.19
Synedra delicatissima v. angustissima	14.9	0.27
Synedra filiformis	106.1	1.92
Synedra ostenfeldii	9.9	0.18
Synedra sp.	6.6	0.12
Synedra ulna	5.0	0.09
Synedra ulna v. chaseana	5.0	0.09
Tabellaria fenestrata v. intermedia	26.5	0.48
Total	5523.0	100.0

Major survey of April 1976, continued.

14 APR 76 NOC 7-5

Number of forms = 56
Temperature(C) = 6.1

Diversity = 4.41
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	1.7	0.11
Anacystis incerta	293.5	19.30
Ankistrodesmus falcatus	14.9	0.98
Ankistrodesmus sp. #3	3.3	0.22
Asterionella formosa	89.5	5.89
Centric diatom, unknown	63.0	4.14
Chromulina #1	9.9	0.65
Chromulina parvula	46.4	3.05
Chrysophycean flagellate spp.	33.2	2.18
Cryptomonas sp.	3.3	0.22
Cyclotella kuetzingiana	1.7	0.11
Cyclotella ocellata	8.3	0.55
Cyclotella sp.	6.6	0.44
Cyclotella stelligera	69.6	4.58
Diatoma tenue v. elongatum	13.3	0.87
Dinobryon bavaricum	3.3	0.22
Dinobryon divergens	3.3	0.22
Dinobryon flagellates	58.0	3.82
Dinoflagellates	18.2	1.20
Flagellates	215.5	14.18
Fragilaria crotonensis	38.1	2.51
Fragilaria pinnata	1.7	0.11
Fragilaria sp.	1.7	0.11
Gloeocystis sp.	3.3	0.22
Green coccoid, unknown	13.3	0.87
Mallomonas sp.	1.7	0.11
Melosira granulata	5.0	0.33
Melosira islandica	6.6	0.44
Melosira italica	49.7	3.27
Nitzschia acicularis	3.3	0.22
Nitzschia dissipata	1.7	0.11
Nitzschia paleacea	1.7	0.11
Nitzschia sp.	1.7	0.11
Ochromonas sp.	26.5	1.74
Oestrupia zachariasi	1.7	0.11
Oscillatoria limnetica	1.7	0.11
Oscillatoria sp.	1.7	0.11
Peridinium sp.	1.7	0.11
Rhizosolenia eriensis	8.3	0.55
Rhizosolenia gracilis	119.4	7.85
Scenedesmus bicellularis	29.8	1.96
Schizothrix calcicola	21.6	1.42
Stauroneis acutiuscula	1.7	0.11
Stephanodiscus alpinus	1.7	0.11
Stephanodiscus hantzschii	13.3	0.87
Stephanodiscus minutus	31.5	2.07
Stephanodiscus sp.	11.6	0.76
Stephanodiscus subtilis	8.3	0.55
Stephanodiscus tenuis	1.7	0.11
Synedra delicatissima v. angustissima	8.3	0.55
Synedra filiformis	26.5	1.74
Synedra ostenfeldii	5.0	0.33
Synedra ulna v. chaseana	9.9	0.65
Tabellaria fenestrata	14.9	0.98
Tabellaria fenestrata v. intermedia	8.3	0.55
Ulothrix sp.	79.6	5.23
Total	1520.4	100.0

Major survey of April 1970, continued.

14 APR 76 SDC.5-0

Number of forms = 67
Temperature(C) = ---

Diversity = 4.50
Counted by: S.W.

Taxon	Cells/ml	Percent
Anacystis incerta	169.1	2.93
Ankistrodesmus falcatus	16.6	0.29
Asterionella formosa	756.1	13.10
Centric diatom, unknown	460.9	7.99
Chromulina #1	6.6	0.11
Chrysophycean flagellate spp.	252.0	4.37
Cryptomonas sp.	23.2	0.40
Cyclotella meneghiniana v. plana	19.9	0.34
Cyclotella meneghiniana	6.6	0.11
Cyclotella michiganiana	6.6	0.11
Cyclotella sp.	26.5	0.46
Cyclotella stelligera	19.9	0.34
Diatoma tenue v. elongatum	222.2	3.85
Dinobryon flagellates	19.9	0.34
Dinoflagellates	6.6	0.11
Diploneis #2	3.3	0.06
Flagellates	245.4	4.25
Fragilaria capucina	36.5	0.63
Fragilaria construens	3.3	0.06
Fragilaria crotonensis	630.1	10.92
Fragilaria intermedia	16.6	0.29
Fragilaria intermedia v. fallax	76.3	1.32
Fragilaria pinnata	3.3	0.06
Fragilaria vaucheriae	6.6	0.11
Gloeocystis planctonica	13.3	0.23
Gloeocystis sp.	19.9	0.34
Melosira granulata	63.0	1.09
Melosira granulata v. angustissima	9.9	0.17
Melosira islandica	76.3	1.32
Melosira italica	39.8	0.69
Navicula capitata	3.3	0.06
Navicula cryptocephala v. veneta	3.3	0.06
Navicula decussis	6.6	0.11
Navicula gregaria	3.3	0.06
Navicula menisculus v. upsaliensis	3.3	0.06
Navicula sp.	9.9	0.17
Nitzschia acicularis	9.9	0.17
Nitzschia dissipata	3.3	0.06
Nitzschia paleacea	9.9	0.17
Nitzschia spiculoides	3.3	0.06
Nitzschia sp.	6.6	0.11
Nitzschia sp. #1	3.3	0.06
Ochromonas sp.	69.6	1.21
Oscillatoria limnetica	13.3	0.23
Oscillatoria sp.	3.3	0.06
Rhizosolenia eriensis	29.8	0.52
Rhizosolenia gracilis	278.6	4.83
Scenedesmus bicellularis	6.6	0.11
Scenedesmus quadricauda v. longispina	26.5	0.46
Scenedesmus quadricauda	13.3	0.23
Scenedesmus sp.	13.3	0.23
Schizothrix calcicola	92.9	1.61
Stephanodiscus alpinus	6.6	0.11
Stephanodiscus binderanus	16.6	0.29
Stephanodiscus hantzschii	162.5	2.82
Stephanodiscus minutus	122.7	2.13
Stephanodiscus sp.	673.2	11.67
Stephanodiscus subtilis	358.1	6.21
Stephanodiscus tenuis	281.9	4.89
Synedra delicatissima v. angustissima	13.3	0.23
Synedra filiformis	82.9	1.44
Synedra ostenfeldii	16.6	0.29
Synedra tenera	3.3	0.06
Synedra ulna v. chaseana	6.6	0.11
Tabellaria fenestrata v. intermedia	119.4	2.07
Tetraedron caudatum	3.3	0.06
Ulothrix sp.	33.2	0.57
Total	5770.0	100.0

Major survey of April 1976, continued.

14 APR 76 SDC.5-1

Number of forms = 59
Temperature(C) = 9.5

Diversity = 4.34
Counted by: N.S.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.05
Achnanthes lanceolata v. dubia	3.3	0.05
Achnanthes sp.	3.3	0.05
Anacystis incerta	364.8	5.26
Ankistrodesmus falcatus	59.7	0.86
Asterionella formosa	852.2	12.29
Centric diatom, unknown	9.9	0.14
Chromulina #1	49.7	0.72
Chromulina parvula	172.4	2.49
Chrysophycean flagellate spp.	497.4	7.17
Cryptomonas sp.	16.6	0.24
Cyclotella comensis	3.3	0.05
Cyclotella meneghiniana	6.6	0.10
Cyclotella pseudostelligera	6.6	0.10
Cyclotella stelligera	19.9	0.29
Diatoma tenue v. elongatum	132.6	1.91
Dinobryon sociale	3.3	0.05
Dinoflagellates	29.8	0.43
Flagellate a	6.6	0.10
Flagellates	358.1	5.17
Fragilaria crotonensis	1024.7	14.78
Fragilaria intermedia	46.4	0.67
Fragilaria intermedia v. fallax	49.7	0.72
Gloeocystis planctonica	36.5	0.53
Gloeocystis sp.	33.2	0.48
Green cells, undetermined	6.6	0.10
Kirchneriella lunaris	13.3	0.19
Melosira granulata	86.2	1.24
Melosira islandica	16.6	0.24
Melosira italica	76.3	1.10
Navicula sp.	3.3	0.05
Nitzschia acicularis	16.6	0.24
Nitzschia dissipata	3.3	0.05
Nitzschia paleacea	3.3	0.05
Nitzschia spiculoides	3.3	0.05
Nitzschia sp.	3.3	0.05
Nitzschia sublinearis	3.3	0.05
Ochromonas sp.	202.3	2.92
Oscillatoria sp.	29.8	0.43
Rhizosolenia eriensis	56.4	0.81
Rhizosolenia gracilis	484.2	6.98
Scenedesmus bicellularis	56.4	0.81
Schizothrix calcicola	102.8	1.48
Stephanodiscus binderanus	23.2	0.33
Stephanodiscus hantzschii	13.3	0.19
Stephanodiscus minutus	593.6	8.56
Stephanodiscus sp.	116.1	1.67
Stephanodiscus sp. #5	13.3	0.19
Stephanodiscus subtilis	756.1	10.90
Stephanodiscus tenuis	46.4	0.67
Synedra delicatissima v. angustissima	53.1	0.77
Synedra filiformis	96.2	1.39
Synedra ostenfeldii	33.2	0.48
Synedra sp.	3.3	0.05
Synedra tenera	9.9	0.14
Synedra ulna v. chaseana	23.2	0.33
Tabellaria fenestrata	13.3	0.19
Tabellaria fenestrata v. intermedia	126.0	1.82
Ulothrix sp.	56.4	0.81
Total	6934.0	100.0

14 APR 76 SDC.5-2

Number of forms = 58
Temperature(C) = 9.2

Diversity = 4.42
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes sp.	3.3	0.07
Ankistrodesmus falcatus	19.9	0.41
Asterionella formosa	676.5	13.82
Chromulina #1	9.9	0.20
Chrysophycean flagellate spp.	29.8	0.61
Cosmarium #1	3.3	0.07
Crucigenia quadrata	13.3	0.27
Cryptomonas sp.	19.9	0.41
Cyclotella atomus	19.9	0.41
Cyclotella comta	9.9	0.20
Cyclotella cryptica	6.6	0.14
Cyclotella meneghiniana	16.6	0.34
Cyclotella michiganiana auxospore	3.3	0.07
Cyclotella michiganiana	19.9	0.41
Cyclotella ocellata	6.6	0.14
Cyclotella stelligera	73.0	1.49
Cymbella microcephala	3.3	0.07
Diatoma tenue v. elongatum	195.7	4.00
Dinobryon flagellates	53.1	1.08
Dinoflagellates	23.2	0.47
Flagellates	742.8	15.18
Fragilaria crotonensis	460.9	9.42
Fragilaria intermedia	96.2	1.96
Fragilaria intermedia v. fallax	19.9	0.41
Gloeocystis planctonica	63.0	1.29
Gloeocystis sp.	19.9	0.41
Kirchneriella sp.	29.8	0.61
Melosira distans v. alpigena	3.3	0.07
Melosira granulata	53.1	1.08
Melosira italica	106.1	2.17
Navicula cryptocephala	3.3	0.07
Navicula diluviana	3.3	0.07
Navicula gregaria	3.3	0.07
Navicula latens	3.3	0.07
Nitzschia acicularis	13.3	0.27
Nitzschia bacata	3.3	0.07
Nitzschia confinis	6.6	0.14
Nitzschia holsatica	73.0	1.49
Nitzschia paleacea	3.3	0.07
Nitzschia spiculoides	3.3	0.07
Ochromonas sp.	179.1	3.66
Oscillatoria sp.	36.5	0.75
Rhizosolenia eriensis	26.5	0.54
Rhizosolenia gracilis	338.2	6.91
Scenedesmus quadricauda	13.3	0.27
Schizothrix calcicola	43.1	0.88
Stephanodiscus hantzschii	43.1	0.88
Stephanodiscus minutus	308.4	6.30
Stephanodiscus sp. #5	9.9	0.20
Stephanodiscus subtilis	298.5	6.10
Stephanodiscus tenuis	232.1	4.74
Synedra delicatissima v. angustissima	39.8	0.81
Synedra filiformis	46.4	0.95
Synedra ostenfeldii	53.1	1.08
Synedra tenera	6.6	0.14
Synedra ulna	3.3	0.07
Tabellaria fenestrata v. intermedia	139.3	2.85
Ulothrix sp.	159.2	3.25
Total	4894.6	100.0

Major survey of April 1976, continued.

14 APR 76 SDC 1-0

Number of forms = 76
Temperature(C) = ---

Diversity = 4.86
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	9.9	0.09
Anacystis incerta	397.9	3.46
Ankistrodesmus falcatus	119.4	1.04
Ankistrodesmus sp.	53.1	0.46
Ankistrodesmus sp. #3	23.2	0.20
Asterionella formosa	965.0	8.38
Centric diatom, unknown	799.2	6.94
Chromulina #1	106.1	0.92
Chromulina parvula	169.1	1.47
Chrysophycean flagellate spp.	537.2	4.67
Cryptomonas sp.	16.6	0.14
Cyclotella meneghiniana v. plana	39.8	0.35
Cyclotella meneghiniana	6.6	0.06
Cyclotella ocellata	3.3	0.03
Cyclotella sp.	29.8	0.26
Cyclotella stelligera	43.1	0.37
Cyclotella temperei	3.3	0.03
Cymbella microcephala	3.3	0.03
Cymbella minuta	3.3	0.03
Diatoma tenue v. elongatum	281.9	2.45
Dinobryon flagellates	86.2	0.75
Dinoflagellates	19.9	0.17
Flagellates	742.8	6.45
Fragilaria capucina	245.4	2.13
Fragilaria crotonensis	842.3	7.32
Fragilaria intermedia v. fallax	242.1	2.10
Fragilaria pinnata	6.6	0.06
Fragilaria vaucheriae	3.3	0.03
Gloeocystis planctonica	119.4	1.04
Gloeocystis sp.	311.7	2.71
Gomphonema olivaceum	3.3	0.03
Green coccoid, unknown	49.7	0.43
Kirchneriella sp.	19.9	0.17
Melosira granulata	99.5	0.86
Melosira islandica	59.7	0.52
Melosira italica	92.9	0.81
Navicula capitata	3.3	0.03
Navicula decussis	9.9	0.09
Navicula gregaria	6.6	0.06
Navicula menisculus	3.3	0.03
Navicula sp.	26.5	0.23
Navicula tripunctata	3.3	0.03
Nitzschia acicularis	43.1	0.37
Nitzschia bacata	6.6	0.06
Nitzschia dissipata	3.3	0.03
Nitzschia holsatica	46.4	0.40
Nitzschia kuetzingiana	3.3	0.03
Nitzschia paleacea	3.3	0.03
Nitzschia spiculoides	6.6	0.06
Nitzschia sp.	23.2	0.20
Nitzschia sp. #2	3.3	0.03
Ochromonas sp.	464.3	4.03
Oscillatoria limnetica	6.6	0.06
Oscillatoria sp.	13.3	0.12
Rhizosolenia eriensis	56.4	0.49
Rhizosolenia gracilis	407.9	3.54
Scenedesmus bicellularis	59.7	0.52
Scenedesmus quadricauda v. longispina	26.5	0.23
Scenedesmus quadricauda	6.6	0.06
Scenedesmus sp.	13.3	0.12
Scenedesmus spinosus	13.3	0.12
Schizothrix calcicola	189.0	1.64
Stephanodiscus alpinus	3.3	0.03
Stephanodiscus hantzschii	298.5	2.59
Stephanodiscus minutus	341.6	2.97
Stephanodiscus niagarae	6.6	0.06
Stephanodiscus sp.	1167.3	10.14
Stephanodiscus subtilis	663.2	5.76
Stephanodiscus tenuis	378.0	3.28
Synedra delicatissima v. angustissima	59.7	0.52
Synedra filiformis	172.4	1.50
Synedra ostenfeldii	36.5	0.32
Synedra sp.	6.6	0.06
Tabellaria fenestrata	9.9	0.09
Tabellaria fenestrata v. intermedia	82.9	0.72
Ulothrix sp.	278.6	2.42
Total	11510.1	100.0

Major survey of April 1976, continued.

14 APR 76 SDC 1-1

Number of forms = 54
Temperature(C) = 8.5

Diversity = 4.67
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes sp.	3.3	0.10
Amphora ovalis v. pediculus	3.3	0.10
Anacystis incerta	53.1	1.54
Ankistrodesmus falcatus	39.8	1.16
Ankistrodesmus sp. #3	6.6	0.19
Asterionella formosa	205.6	5.98
Centric diatom, unknown	308.4	8.97
Chromulina #1	39.8	1.16
Chromulina parvula	76.3	2.22
Chrysophycean flagellate spp.	159.2	4.63
Cryptomonas sp.	13.3	0.39
Cyclotella meneghiniana v. plana	13.3	0.39
Cyclotella meneghiniana	3.3	0.10
Cyclotella sp.	13.3	0.39
Cyclotella stelligera	23.2	0.68
Cyclotella temperei	3.3	0.10
Diatoma tenue v. elongatum	29.8	0.87
Dinobryon flagellates	59.7	1.74
Dinoflagellates	3.3	0.10
Flagellates	199.0	5.79
Fragilaria crotonensis	225.5	6.56
Gloeocystis planctonica	26.5	0.77
Gloeocystis sp.	29.8	0.87
Green coccoid, unknown	16.6	0.48
Kirchneriella contorta	13.3	0.39
Kirchneriella sp.	23.2	0.68
Mallomonas sp.	3.3	0.10
Melosira granulata	9.9	0.29
Melosira islandica	13.3	0.39
Melosira italica	26.5	0.77
Navicula cryptocephala v. veneta	6.6	0.19
Navicula sp.	9.9	0.29
Nitzschia paleacea	3.3	0.10
Nitzschia sp.	6.6	0.19
Nitzschia sp. #2	3.3	0.10
Ochromonas sp.	218.9	6.36
Oscillatoria limnetica	3.3	0.10
Oscillatoria sp.	6.6	0.19
Rhizosolenia eriensis	33.2	0.96
Rhizosolenia gracilis	268.6	7.81
Scenedesmus bicellularis	53.1	1.54
Scenedesmus quadricauda v. longispina	26.5	0.77
Schizothrix calcicola	26.5	0.77
Stephanodiscus hantzschii	56.4	1.64
Stephanodiscus minutus	99.5	2.89
Stephanodiscus sp.	238.8	6.94
Stephanodiscus sp. #5	6.6	0.19
Stephanodiscus subtilis	189.0	5.50
Stephanodiscus tenuis	73.0	2.12
Synedra delicatissima v. angustissima	19.9	0.58
Synedra filiformis	39.8	1.16
Synedra ostenfeldii	13.3	0.39
Tabellaria fenestrata v. intermedia	26.5	0.77
Ulothrix sp.	364.8	10.61
Total	3438.8	100.0

Major survey of April 1976, continued.

14 APR 76 SDC 1-2

Number of forms = 53
Temperature(C) = 7.1

Diversity = 4.23
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes sp.	1.7	0.05
Ankistrodesmus falcatus	31.5	0.87
Asterionella formosa	490.8	13.49
Chrysophycean flagellate spp.	89.5	2.46
Cosmarium #1	1.7	0.05
Cryptomonas sp.	19.9	0.55
Cyclotella comensis	5.0	0.14
Cyclotella meneghiniana v. plana	8.3	0.23
Cyclotella ocellata	1.7	0.05
Cyclotella stelligera	16.6	0.46
Diatoma tenue v. elongatum	126.0	3.46
Dinobryon divergens	97.8	2.69
Dinobryon flagellates	46.4	1.28
Dinoflagellates	28.2	0.77
Flagellates	378.0	10.39
Fragilaria crotonensis	694.7	19.10
Fragilaria intermedia	46.4	1.28
Fragilaria intermedia v. fallax	44.8	1.23
Gloeocystis planctonica	129.3	3.56
Gloeocystis sp.	9.9	0.27
Kirchneriella sp.	13.3	0.36
Melosira granulata	94.5	2.60
Melosira islandica	6.6	0.18
Melosira italica	21.6	0.59
Navicula decussis	1.7	0.05
Navicula sp.	1.7	0.05
Nitzschia acicularis	16.6	0.46
Nitzschia bacata	1.7	0.05
Nitzschia confinis	3.3	0.09
Nitzschia dissipata	1.7	0.05
Nitzschia paleacea	1.7	0.05
Nitzschia sp.	1.7	0.05
Nitzschia sp. #2	3.3	0.09
Ochromonas sp.	157.5	4.33
Oscillatoria sp.	8.3	0.23
Rhizosolenia eriensis	21.6	0.59
Rhizosolenia gracilis	364.8	10.03
Scenedesmus opoliensis	6.6	0.18
Scenedesmus quadricauda v. longispina	6.6	0.18
Scenedesmus quadricauda	13.3	0.36
Schizothrix calcicola	66.3	1.82
Stephanodiscus minutus	106.1	2.92
Stephanodiscus niagarae	3.3	0.09
Stephanodiscus sp. #5	5.0	0.14
Stephanodiscus subtilis	28.2	0.77
Stephanodiscus tenuis	89.5	2.46
Synedra delicatissima v. angustissima	26.5	0.73
Synedra filiformis	56.4	1.55
Synedra ostenfeldii	24.9	0.68
Synedra tenera	5.0	0.14
Synedra ulna	3.3	0.09
Tabellaria fenestrata v. intermedia	61.3	1.69
Ulothrix sp.	145.9	4.01
Total	3637.8	100.0

Major survey of April 1976, continued.

14 APR 76 SDC 2-0

Number of forms = 57
Temperature(C) = ---

Diversity = 4.33
Counted by: S.W.

Taxon	Cells/ml	Percent
Acnnanthes lanceolata v. dubia	3.3	0.06
Amphora sp.	3.3	0.06
Amphora #3	3.3	0.06
Anacystis incerta	248.7	4.84
Ankistrodesmus falcatus	36.5	0.71
Ankistrodesmus sp. #3	3.3	0.06
Asterionella formosa	484.2	9.43
Centric diatom, unknown	494.1	9.62
Chromulina parvula	9.9	0.19
Chrysophycean flagellate spp.	195.7	3.81
Crucigenia tetrapedia	13.3	0.26
Cryptomonas sp.	9.9	0.19
Cyclotella meneghiniana v. plana	9.9	0.19
Cyclotella meneghiniana	16.6	0.32
Cyclotella sp.	16.6	0.32
Cyclotella stelligera	19.9	0.39
Cymbella sp.	3.3	0.06
Diatoma tenue v. elongatum	175.8	3.42
Dinobryon cysts	3.3	0.06
Dinobryon flagellates	39.8	0.77
Dinoflagellates	3.3	0.06
Flagellate a	3.3	0.06
Flagellates	268.6	5.23
Fragilaria crotonensis	507.4	9.88
Fragilaria intermedia v. fallax	9.9	0.19
Fragilaria pinnata	3.3	0.06
Gloeocystis planctonica	23.2	0.45
Gloeocystis sp.	59.7	1.16
Gomphonema olivaceum	3.3	0.06
Green coccoid, unknown	6.6	0.13
Mallomonas sp. #3	6.6	0.13
Melosira granulata	63.0	1.23
Melosira islandica	26.5	0.52
Melosira italica	36.5	0.71
Navicula sp.	3.3	0.06
Navicula tripunctata	3.3	0.06
Nitzschia acicularis	13.3	0.26
Nitzschia sp.	16.6	0.32
Nitzschia sp. #1	6.6	0.13
Ochromonas sp.	145.9	2.84
Oscillatoria sp.	6.6	0.13
Rhizosolenia eriensis	23.2	0.45
Rhizosolenia gracilis	275.2	5.36
Scenedesmus bicellularis	9.9	0.19
Scenedesmus quadricauda v. longispina	26.5	0.52
Schizothrix calcicola	29.8	0.58
Stephanodiscus hantzschii	6.6	0.13
Stephanodiscus minutus	172.4	3.36
Stephanodiscus niagarae	3.3	0.06
Stephanodiscus sp.	643.3	12.52
Stephanodiscus subtilis	557.1	10.85
Stephanodiscus tenuis	185.7	3.62
Synedra delicatissima v. angustissima	23.2	0.45
Synedra filiformis	89.5	1.74
Synedra ostenfeldii	16.6	0.32
Synedra tenera	3.3	0.06
Tabellaria fenestrata v. intermedia	63.0	1.23
Total	5136.7	100.0

14 APR 76 SDC 2-1

Number of forms = 68
Temperature(C) = 10.5

Diversity = 4.63
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	3.3	0.03
Achnanthes sp.	6.6	0.07
Amphora ovalis v. pediculus	3.3	0.03
Ankistrodesmus falcatus	86.2	0.87
Ankistrodesmus sp.	16.6	0.17
Ankistrodesmus sp. #3	3.3	0.03
Asterionella formosa	905.3	9.14
Centric diatom, unknown	480.8	4.86
Chromulina #1	76.3	0.77
Chromulina parvula	152.5	1.54
Chrysophycean flagellate spp.	457.6	4.62
Cryptomonas sp.	43.1	0.44
Cyclotella meneghiniana v. plana	19.9	0.20
Cyclotella meneghiniana	13.3	0.13
Cyclotella sp.	6.6	0.07
Cyclotella stelligera	36.5	0.37
Cyclotella temperei	3.3	0.03
Diatoma tenue v. elongatum	152.5	1.54
Dinobryon flagellates	139.3	1.41
Dinoflagellates	36.5	0.37
Flagellate a	9.9	0.10
Flagellates	1266.8	12.79
Fragilaria capucina	364.8	3.68
Fragilaria crotonensis	1399.4	14.13
Fragilaria intermedia v. fallax	69.6	0.70
Gloeocystis sp.	102.8	1.04
Golenkinia radiata	3.3	0.03
Green coccoid, unknown	39.8	0.40
Green filament, unknown	53.1	0.54
Kirchneriella sp.	3.3	0.03
Mallomonas sp. #3	6.6	0.07
Melosira granulata	79.6	0.80
Melosira islandica	106.1	1.07
Melosira italica	142.6	1.44
Nitzschia acicularis	39.8	0.40
Nitzschia dissipata	3.3	0.03
Nitzschia fonticola	3.3	0.03
Nitzschia palea	3.3	0.03
Nitzschia paleacea	3.3	0.03
Nitzschia sp.	13.3	0.13
Nitzschia sp. #1	3.3	0.03
Ochromonas sp.	378.0	3.82
Oscillatoria limnetica	19.9	0.20
Oscillatoria sp.	9.9	0.10
Rhizosolenia eriensis	53.1	0.54
Rhizosolenia gracilis	500.7	5.06
Scenedesmus acuminatus	19.9	0.20
Scenedesmus bicellularis	82.9	0.84
Scenedesmus bijuga	13.3	0.13
Scenedesmus quadricauda v. longispina	26.5	0.27
Scenedesmus quadricauda	13.3	0.13
Scenedesmus sp.	33.2	0.33
Schizothrix calcicola	76.3	0.77
Stephanodiscus hantzschii	132.6	1.34
Stephanodiscus minutus	222.2	2.24
Stephanodiscus niagarae	3.3	0.03
Stephanodiscus sp.	646.6	6.53
Stephanodiscus subtilis	431.1	4.35
Stephanodiscus tenuis	162.5	1.64
Synedra delicatissima v. angustissima	39.8	0.40
Synedra filiformis	102.8	1.04
Synedra ostenfeldii	63.0	0.64
Synedra sp.	6.6	0.07
Synedra tenera	9.9	0.10
Synedra ulna v. chaseana	13.3	0.13
Tabellaria fenestrata	76.3	0.77
Tabellaria fenestrata v. intermedia	159.2	1.61
Ulothrix sp.	245.4	2.48
Total	9901.8	100.0

Major survey of April 1976, continued.

14 APR 76 SDC 2-3

Number of forms = 49
Temperature(C) = 8.8

Diversity = 4.22
Counted by: S.K.

Taxon	Cells/ml	Percent
Anacystis incerta	789.2	18.70
Ankistrodesmus falcatus	23.2	0.55
Asterionella formosa	514.0	12.18
Chromulina #1	19.9	0.47
Chromulina parvula	16.6	0.39
Chrysophycean flagellate spp.	89.5	2.12
Cryptomonas sp.	6.6	0.16
Cyclotella auxospore	3.3	0.08
Cyclotella ocellata	6.6	0.16
Cyclotella stelligera	36.5	0.86
Diatoma tenue v. elongatum	129.3	3.06
Dinobryon divergens	23.2	0.55
Dinobryon flagellates	99.5	2.36
Dinoflagellates	23.2	0.55
Flagellates	371.4	8.80
Fragilaria capucina	179.1	4.24
Fragilaria crotonensis	334.9	7.93
Fragilaria intermedia	19.9	0.47
Fragilaria intermedia v. fallax	9.9	0.24
Gloeocystis planctonica	63.0	1.49
Gloeocystis sp.	9.9	0.24
Gomphonema sp.	3.3	0.08
Kirchneriella sp.	6.6	0.16
Melosira granulata	66.3	1.57
Melosira italica	46.4	1.10
Navicula lanceolata	3.3	0.08
Navicula sp.	3.3	0.08
Nitzschia acicularis	6.6	0.16
Nitzschia bacata	16.6	0.39
Nitzschia dissipata	3.3	0.08
Nitzschia kuetzingiana	3.3	0.08
Nitzschia paleacea	6.6	0.16
Ochromonas sp.	252.0	5.97
Oscillatoria sp.	9.9	0.24
Rhizosolenia eriensis	13.3	0.31
Rhizosolenia gracilis	311.7	7.38
Schizothrix calcicola	69.6	1.65
Stephanodiscus hantzschii	13.3	0.31
Stephanodiscus minutus	232.1	5.50
Stephanodiscus sp. #5	6.6	0.16
Stephanodiscus subtilis	129.3	3.06
Stephanodiscus tenuis	109.4	2.59
Surirella angusta	3.3	0.08
Synedra delicatissima v. angustissima	26.5	0.63
Synedra filiformis	23.2	0.55
Synedra ostenfeldii	46.4	1.10
Synedra tenera	19.9	0.47
Synedra ulna	6.6	0.16
Tabellaria fenestrata v. intermedia	13.3	0.31
Total	4221.4	100.0

14 APR 76 SDC 4-0

Number of forms = 47
Temperature(C) = ---

Diversity = 4.12
Counted by: S.K.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	6.6	0.19
Asterionella formosa	613.5	17.50
Chrysophycean flagellate spp.	43.1	1.23
Cryptomonas sp.	19.9	0.57
Cyclotella meneghiniana v. plana	9.9	0.28
Cyclotella stelligera	19.9	0.57
Cymbella latens	3.3	0.09
Diatoma tenue	3.3	0.09
Diatoma tenue v. elongatum	182.4	5.20
Dinobryon divergens	49.7	1.42
Dinobryon flagellates	49.7	1.42
Dinoflagellates	26.5	0.76
Flagellate a	3.3	0.09
Flagellates	301.8	8.61
Fragilaria capucina	102.8	2.93
Fragilaria crotonensis	603.5	17.22
Fragilaria intermedia	99.5	2.84
Fragilaria pinnata	3.3	0.09
Gloeocystis planctonica	23.2	0.66
Gloeocystis sp.	19.9	0.57
Melosira granulata	99.5	2.84
Melosira italica	13.3	0.38
Navicula capitata v. luneburgensis	3.3	0.09
Nitzschia acicularis	16.6	0.47
Nitzschia amphibia	3.3	0.09
Nitzschia bacata	9.9	0.28
Nitzschia closterium	3.3	0.09
Nitzschia confinis	6.6	0.19
Nitzschia dissipata	3.3	0.09
Nitzschia paleacea	3.3	0.09
Nitzschia spiculoides	3.3	0.09
Nitzschia sp.	3.3	0.09
Ochromonas sp.	3.3	0.09
Oscillatoria sp.	3.3	0.09
Rhizosolenia eriensis	23.2	0.66
Rhizosolenia gracilis	242.1	6.91
Scenedesmus quadricauda	39.8	1.14
Schizothrix calcicola	23.2	0.66
Stephanodiscus minutus	225.5	6.43
Stephanodiscus subtilis	149.2	4.26
Stephanodiscus tenuis	199.0	5.68
Synedra delicatissima v. angustissima	26.5	0.76
Synedra filiformis	116.1	3.31
Synedra ostenfeldii	29.8	0.85
Synedra tenera	13.3	0.38
Synedra ulna	3.3	0.09
Tabellaria fenestrata v. intermedia	53.1	1.51
Total	3505.1	100.0

14 APR 76 SDC 4-1

Number of forms = 56
Temperature(C) = 9.0

Diversity = 4.33
Counted by: S.K.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	9.9	0.35
Ankistrodesmus sp. #3	1.7	0.06
Asterionella formosa	434.4	15.30
Chromulina #1	1.7	0.06
Chrysophycean flagellate spp.	31.5	1.11
Cryptomonas sp.	14.9	0.53
Cyclotella comensis	9.9	0.35
Cyclotella meneghiniana v. plana	8.3	0.29
Cyclotella meneghiniana	6.6	0.23
Cyclotella michiganiana	16.6	0.58
Cyclotella ocellata	3.3	0.12
Cyclotella stelligera	8.3	0.29
Diatoma tenue v. elongatum	111.1	3.91
Dinobryon divergens	26.5	0.93
Dinobryon flagellates	16.6	0.58
Dinoflagellates	9.9	0.35
Flagellate a	1.7	0.06
Flagellates	242.1	8.53
Fragilaria crotonensis	366.4	12.91
Fragilaria intermedia	19.9	0.70
Fragilaria intermedia v. fallax	13.3	0.47
Gloeocystis planctonica	48.1	1.69
Gloeocystis sp.	13.3	0.47
Green cells, undetermined	290.2	10.22
Kirchneriella sp.	3.3	0.12
Melosira distans v. alpigena	3.3	0.12
Melosira granulata	73.0	2.57
Melosira italica	23.2	0.82
Navicula sp.	1.7	0.06
Nitzschia acicularis	1.7	0.06
Nitzschia bacata	5.0	0.18
Nitzschia dissipata	1.7	0.06
Nitzschia fonticoloides	1.7	0.06
Nitzschia palea	1.7	0.06
Nitzschia paleacea	1.7	0.06
Nitzschia spiculoides	1.7	0.06
Nitzschia sp. #1	3.3	0.12
Ochromonas sp.	134.3	4.73
Oscillatoria sp.	13.3	0.47
Peridinium sp.	1.7	0.06
Rhizosolenia eriensis	6.6	0.23
Rhizosolenia gracilis	144.3	5.08
Scenedesmus quadricauda v. longispina	6.6	0.23
Scenedesmus quadricauda	13.3	0.47
Schizothrix calcicola	19.9	0.70
Stephanodiscus binderanus	8.3	0.29
Stephanodiscus hantzschii	11.6	0.41
Stephanodiscus minutus	184.0	6.48
Stephanodiscus subtilis	99.5	3.50
Stephanodiscus tenuis	107.8	3.80
Synedra delicatissima v. angustissima	16.6	0.58
Synedra filiformis	33.2	1.17
Synedra ostenfeldii	13.3	0.47
Synedra tenera	9.9	0.35
Tabellaria fenestrata v. intermedia	68.0	2.39
Ulothrix sp.	117.7	4.15
Total	2838.6	100.0

14 APR 76 SDC 4-3

Number of forms = 43
Temperature(C) = 8.1

Diversity = 3.87
Counted by: S.K.

Taxon	Cells/ml	Percent
Anacystis thermalis	13.3	0.69
Ankistrodesmus falcatus	5.0	0.26
Asterionella formosa	217.2	11.37
Chrysophycean flagellate spp.	23.2	1.22
Cryptomonas sp.	16.6	0.87
Cyclotella atomus	3.3	0.17
Cyclotella cryptica	1.7	0.09
Cyclotella meneghiniana v. plana	1.7	0.09
Cyclotella ocellata	9.9	0.52
Cyclotella stelligera	39.8	2.08
Diatoma tenue v. elongatum	73.0	3.82
Dinobryon divergens	3.3	0.17
Dinobryon flagellates	59.7	3.13
Dinoflagellates	9.9	0.52
Flagellates	351.5	18.40
Fragilaria construens v. minuta	1.7	0.09
Fragilaria crotonensis	436.1	22.83
Fragilaria intermedia v. fallax	5.0	0.26
Gloeocystis planctonica	19.9	1.04
Gomphonema olivaceum	1.7	0.09
Melosira granulata	41.5	2.17
Melosira italica	49.7	2.60
Navicula menisculus v. upsaliensis	1.7	0.09
Nitzschia acicularis	3.3	0.17
Nitzschia acuta	1.7	0.09
Nitzschia bacata	3.3	0.17
Nitzschia confinis	3.3	0.17
Nitzschia frustulum	1.7	0.09
Nitzschia sp. #2	3.3	0.17
Ochromonas sp.	101.1	5.30
Rhizosolenia eriensis	11.6	0.61
Rhizosolenia gracilis	111.1	5.82
Schizothrix calcicola	21.6	1.13
Stephanodiscus hantzschii	5.0	0.26
Stephanodiscus minutus	102.8	5.38
Stephanodiscus sp. #5	6.6	0.35
Stephanodiscus subtilis	26.5	1.39
Stephanodiscus tenuis	24.9	1.30
Synedra delicatissima v. angustissima	24.9	1.30
Synedra filiformis	23.2	1.22
Synedra ostenfeldii	41.5	2.17
Synedra ulna	1.7	0.09
Tabellaria fenestrata v. intermedia	5.0	0.26
Total	1910.1	100.0

14 APR 76 SOC 4-4

Number of forms = 35
Temperature(C) = 3.0

Diversity = 2.93
Counted by: S.K.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	1.7	0.12
Ankistrodesmus falcatus	8.3	0.59
Asterionella formosa	1.7	0.12
Chrysophycean flagellate spp.	64.7	4.64
Cryptomonas sp.	24.9	1.78
Cyclotella comensis	8.3	0.59
Cyclotella michiganiana	3.3	0.24
Cyclotella ocellata	11.6	0.83
Cyclotella stelligera	82.9	5.95
Diatoma tenue v. elongatum	3.3	0.24
Dinobryon flagellates	6.6	0.48
Dinoflagellates	18.2	1.31
Flagellates	772.7	55.41
Fragilaria crotonensis	19.9	1.43
Gloeocystis planctonica	29.8	2.14
Gloeocystis sp.	23.2	1.66
Melosira granulata	23.2	1.66
Melosira italica	21.6	1.55
Nitzschia sp.	1.7	0.12
Ochromonas sp.	68.0	4.88
Oscillatoria sp.	1.7	0.12
Rhizosolenia eriensis	3.3	0.24
Rhizosolenia gracilis	54.7	3.92
Schizothrix calcicola	8.3	0.59
Stephanodiscus alpinus	1.7	0.12
Stephanodiscus hantzschii	14.9	1.07
Stephanodiscus minutus	41.5	2.97
Stephanodiscus sp. #5	6.6	0.48
Stephanodiscus subtilis	14.9	1.07
Stephanodiscus tenuis	3.3	0.24
Synedra delicatissima v. angustissima	5.0	0.36
Synedra filiformis	14.9	1.07
Synedra ostenfeldii	3.3	0.24
Synedra tenera	8.3	0.59
Tabellaria fenestrata v. intermedia	16.6	1.19
Total	1394.4	100.0

Major survey of April 1976, continued.

14 APR 76 SDC 7-1

Number of forms = 52
Temperature (C) = 9.0

Diversity = 4.15
Counted by: N.S.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	13.3	0.38
Ankistrodesmus sp. #3	3.3	0.10
Asterionella formosa	189.0	5.43
Centric diatom, unknown	9.9	0.29
Chromulina #1	9.9	0.29
Chromulina parvula	39.8	1.14
Chrysophycean flagellate spp.	570.4	16.38
Cryptomonas sp.	33.2	0.95
Cyclotella cryptica	3.3	0.10
Cyclotella kuetzingiana	3.3	0.10
Cyclotella meneghiniana	3.3	0.10
Cyclotella ocellata	3.3	0.10
Cyclotella sp.	3.3	0.10
Cyclotella stelligera	6.6	0.19
Diatoma tenue v. elongatum	39.8	1.14
Dinobryon sp.	6.6	0.19
Dinoflagellates	16.6	0.48
Diploneis oculata	3.3	0.10
Flagellate a	6.6	0.19
Flagellates	364.8	10.48
Fragilaria capucina	106.1	3.05
Fragilaria crotonensis	407.9	11.71
Fragilaria intermedia	73.0	2.10
Fragilaria intermedia v. fallax	29.8	0.86
Gloeocystis planctonica	13.3	0.38
Gloeocystis sp.	13.3	0.38
Mallomonas sp. #3	3.3	0.10
Melosira granulata	16.6	0.48
Melosira islandica	29.8	0.86
Melosira italica	26.5	0.76
Navicula radiosa v. tenella	3.3	0.10
Navicula sp.	6.6	0.19
Nitzschia acicularis	6.6	0.19
Nitzschia bacata	3.3	0.10
Nitzschia dissipata	3.3	0.10
Nitzschia gracilis	3.3	0.10
Nitzschia sp. #10	3.3	0.10
Ochromonas sp.	106.1	3.05
Opephora martyi	3.3	0.10
Oscillatoria sp.	19.9	0.57
Rhizosolenia eriensis	16.6	0.48
Rhizosolenia gracilis	199.0	5.71
Scenedesmus bicellularis	19.9	0.57
Schizothrix calcicola	39.8	1.14
Stephanodiscus minutus	364.9	10.48
Stephanodiscus sp.	73.0	2.10
Stephanodiscus subtilis	397.9	11.43
Stephanodiscus tenuis	49.7	1.43
Synedra delicatissima v. angustissima	6.6	0.19
Synedra filiformis	56.4	1.62
Synedra ostenfeldii	29.8	0.86
Tabellaria fenestrata v. intermedia	19.9	0.57
Total	3481.9	100.0

14 APR 76 SDC 7-3

Number of forms = 60
Temperature(C) = 9.8

Diversity = 4.54
Counted by: S.W.

Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	86.2	1.41
Ankistrodesmus sp.	3.3	0.05
Ankistrodesmus sp. #3	3.3	0.05
Asterionella formosa	643.3	10.52
Centric diatom, unknown	364.8	5.97
Chromulina #1	23.2	0.38
Chromulina parvula	26.5	0.43
Chrysophycean flagellate spp.	252.0	4.12
Cocconeis sp.	3.3	0.05
Cryptomonas sp.	33.2	0.54
Cyclotella kuetzingiana	3.3	0.05
Cyclotella meneghiniana v. plana	9.9	0.16
Cyclotella meneghiniana	19.9	0.33
Cyclotella michiganiana	9.9	0.16
Cyclotella sp.	9.9	0.16
Cyclotella stelligera	13.3	0.22
Cymbella minuta	3.3	0.05
Diatoma tenue v. elongatum	86.2	1.41
Dinobryon bavaricum	19.9	0.33
Dinobryon divergens	122.7	2.01
Dinobryon flagellates	89.5	1.46
Dinoflagellates	63.0	1.03
Flagellates	951.7	15.56
Fragilaria crotonensis	590.3	9.65
Gloeocystis planctonica	46.4	0.76
Gloeocystis sp.	82.9	1.36
Green coccoid, unknown	13.3	0.22
Kirchneriella sp.	13.3	0.22
Mallomonas sp. #3	3.3	0.05
Melosira granulata	56.4	0.92
Melosira islandica	89.5	1.46
Melosira italica	149.2	2.44
Navicula sp.	9.9	0.16
Nitzschia acicularis	13.3	0.22
Nitzschia sp.	36.5	0.60
Nitzschia sp. #10	3.3	0.05
Ochromonas sp.	328.3	5.37
Oscillatoria limnetica	29.8	0.49
Oscillatoria sp.	9.9	0.16
Rhizosolenia eriensis	46.4	0.76
Rhizosolenia gracilis	523.9	8.57
Scenedesmus acuminatus	3.3	0.05
Scenedesmus bicellularis	86.2	1.41
Scenedesmus bijuga	6.6	0.11
Scenedesmus quadricauda v. longispina	13.3	0.22
Scenedesmus quadricauda	6.6	0.11
Schizothrix calcicola	43.1	0.70
Stephanodiscus hantzschii	19.9	0.33
Stephanodiscus minutus	73.0	1.19
Stephanodiscus sp.	311.7	5.10
Stephanodiscus subtilis	112.7	1.84
Stephanodiscus tenuis	92.9	1.52
Synedra delicatissima v. angustissima	33.2	0.54
Synedra filiformis	99.5	1.63
Synedra ostenfeldii	33.2	0.54
Synedra sp.	3.3	0.05
Synedra ulna v. chaseana	6.6	0.11
Tabellaria fenestrata	6.6	0.11
Tabellaria fenestrata v. intermedia	39.8	0.65
Ulothrix sp.	235.4	3.85
Total	6114.9	100.0

14 APR 76 SDC 7-5

Number of forms = 45
Temperature(C) = 8.0

Diversity = 4.26
Counted by: S.W.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Ankistrodesmus falcatus	1.7	0.16	Melosira italica	48.1	4.68
Asterionella formosa	142.6	13.89	Nitzschia confinis	1.7	0.16
Centric diatom, unknown	48.1	4.68	Nitzschia paleacea	1.7	0.16
Chrysophycean flagellate spp.	39.8	3.88	Nitzschia sp.	1.7	0.16
Cryptomonas sp.	1.7	0.16	Ochromonas sp.	21.6	2.10
Cyclotella comensis	3.3	0.32	Rhizosolenia eriensis	5.0	0.48
Cyclotella michiganiana	1.7	0.16	Rhizosolenia gracilis	116.1	11.31
Cyclotella ocellata	6.6	0.65	Scenedesmus bicellularis	6.6	0.65
Cyclotella sp.	8.3	0.81	Schizothrix calcicola	3.3	0.32
Cyclotella stelligera	9.9	0.97	Stephanodiscus alpinus	1.7	0.16
Diatoma tenue v. elongatum	51.4	5.01	Stephanodiscus hantzschii	1.7	0.16
Dinobryon bavaricum	8.3	0.81	Stephanodiscus minutus	28.2	2.75
Dinobryon divergens	8.3	0.81	Stephanodiscus sp.	26.5	2.58
Dinobryon flagellates	39.8	3.88	Stephanodiscus subtilis	16.6	1.62
Dinoflagellates	9.9	0.97	Stephanodiscus tenuis	5.0	0.48
Flagellates	86.2	8.40	Synedra delicatissima v. angustissima	6.6	0.65
Fragilaria crotonensis	169.1	16.48	Synedra filiformis	23.2	2.26
Fragilaria pinnata	1.7	0.16	Synedra ostenfeldii	13.3	1.29
Gloeocystis planctonica	24.9	2.42	Synedra parasitica	1.7	0.16
Gloeocystis sp.	1.7	0.16	Synedra sp.	5.0	0.48
Green coccoid, unknown	3.3	0.32	Synedra ulna v. chaseana	1.7	0.16
Melosira granulata	3.3	0.32	Tabellaria fenestrata v. intermedia	8.3	0.81
Melosira islandica	9.9	0.97			
			Total	1026.3	100.0

Density (cells/ml) of the taxa of phytoplankton found in the major survey of July 1976.

14 JUL 76 DC-0

Number of forms = 73
Temperature(C) = ---

Diversity = 4.74
Counted by: N.S.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	5.0	0.24
Amphora ovalis v. pediculus	1.7	0.08
Amphora sp.	3.3	0.16
Ankistrodesmus gelifactum	6.6	0.33
Ankistrodesmus sp. #3	1.7	0.08
Asterionella formosa	24.9	1.22
Centric diatom, unknown	124.4	6.10
Chrysophycean flagellate spp.	8.3	0.41
Cocconeis sp.	1.7	0.08
Cryptomonas sp.	21.6	1.06
Cyclotella cryptica	3.3	0.16
Cyclotella meneghiniana	28.2	1.38
Cyclotella michiganiana	1.7	0.08
Cyclotella ocellata	1.7	0.08
Cyclotella sp.	3.3	0.16
Cyclotella stelligera	28.2	1.38
Cymatopleura solea	1.7	0.08
Diatoma vulgare	1.7	0.08
Dinobryon cysts	1.7	0.08
Dinobryon divergens	46.4	2.28
Dinobryon flagellates	6.6	0.33
Dinoflagellates	39.8	1.95
Flagellates	252.0	12.36
Fragilaria capucina	109.4	5.37
Fragilaria crotonensis	122.7	6.02
Fragilaria intermedia	109.4	5.37
Fragilaria pinnata	3.3	0.16
Fragilaria pinnata v. lancettula	1.7	0.08
Fragilaria sp.	8.3	0.41
Gloeocystis planctonica	39.8	1.95
Gloeocystis sp.	270.3	13.25
Gomphonema olivaceum	1.7	0.08
Gomphonema sp.	3.3	0.16
Green cells, undetermined	1.7	0.08
Green colony, unknown	13.3	0.65
Melosira granulata	69.6	3.41
Melosira italica	26.5	1.30
Mougeotia sp.	5.0	0.24
Navicula capitata v. luneburgensis	3.3	0.16
Navicula sp.	3.3	0.16
Navicula tripunctata	1.7	0.08
Nitzschia acicularis	3.3	0.16
Nitzschia palea	1.7	0.08
Nitzschia paleacea	5.0	0.24
Nitzschia sp.	24.9	1.22
Nitzschia sp. #1	5.0	0.24
Nitzschia sp. #2	1.7	0.08
Nitzschia sublinearis	3.3	0.16
Ochromonas sp.	1.7	0.08
Oscillatoria sp.	5.0	0.24
Pediastrum duplex v reticulatum	33.2	1.63
Peridinium sp.	1.7	0.08
Rhizosolenia gracilis	9.9	0.49
Scenedesmus acuminatus	13.3	0.65
Scenedesmus bicellularis	36.5	1.79
Scenedesmus quadricauda v. longispina	6.6	0.33
Scenedesmus sp.	81.2	3.98
Stephanodiscus auxospore	1.7	0.08
Stephanodiscus minutus	44.8	2.20
Stephanodiscus sp.	97.8	4.80
Stephanodiscus subtilis	81.2	3.98
Stephanodiscus tenuis	49.7	2.44
Surirella angusta	3.3	0.16
Synedra delicatissima v. angustissima	3.3	0.16
Synedra filiformis	6.6	0.33
Synedra ostenfeldii	3.3	0.16
Synedra sp.	9.9	0.49
Synedra ulna	1.7	0.08
Synedra ulna v. chaseana	5.0	0.24
Tabellaria fenestrata v. intermedia	81.2	3.98
Tetraedron caudatum	1.7	0.08
Tetraedron minimum	1.7	0.08
Undetermined cysts	3.3	0.16
Total	2039.4	100.0

15 JUL 76 DC-1

Number of forms = 49
Temperature(C) = 23.8

Diversity = 4.19
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora sp.	1.7	0.12
Ankistrodesmus gelifactum	8.3	0.59
Asterionella formosa	11.6	0.83
Centric diatom, unknown	126.0	9.00
Ceratium hirundinella	1.7	0.12
Chromulina #1	11.6	0.83
Chromulina parvula	38.1	2.73
Chrysophycean flagellate spp.	54.7	3.91
Cosmarium #1	1.7	0.12
Crucigenia quadrata	26.5	1.90
Cryptomonas sp.	5.0	0.36
Cyclotella meneghiniana	1.7	0.12
Cyclotella sp.	11.6	0.83
Cyclotella stelligera	64.7	4.62
Dinobryon divergens	136.0	9.72
Dinobryon flagellates	5.0	0.36
Dinoflagellates	6.6	0.47
Flagellates	217.2	15.52
Fragilaria capucina	1.7	0.12
Fragilaria crotonensis	34.8	2.49
Fragilaria intermedia	8.3	0.59
Gloeocystis planctonica	73.0	5.21
Gloeocystis sp.	233.8	16.71
Green coccoid, unknown	23.2	1.66
Kirchneriella sp.	34.8	2.49
Mallomonas sp.	1.7	0.12
Melosira italica	3.3	0.24
Navicula #78	1.7	0.12
Navicula sp.	1.7	0.12
Nitzschia confinis	1.7	0.12
Nitzschia fonticola	5.0	0.36
Nitzschia paleacea	8.3	0.59
Nitzschia sp.	1.7	0.12
Ochromonas sp.	13.3	0.95
Oocystis sp.	94.5	6.75
Pediastrum sp.	6.6	0.47
Peridinium sp.	3.3	0.24
Rhizosolenia eriensis	1.7	0.12
Rhizosolenia gracilis	5.0	0.36
Scenedesmus bicellularis	46.4	3.32
Scenedesmus quadricauda v. longispina	6.6	0.47
Scenedesmus quadricauda	6.6	0.47
Scenedesmus sp.	16.6	1.18
Stephanodiscus minutus	1.7	0.12
Stephanodiscus sp.	8.3	0.59
Stephanodiscus subtilis	19.9	1.42
Stephanodiscus tenuis	1.7	0.12
Synedra filiformis	1.7	0.12
Tetraedron caudatum	1.7	0.12
Total	1399.4	100.0

Major survey of July 1976, continued.

15 JUL 76 DC-2

Number of forms = 52
Temperature (C) = 22.0

Diversity = 3.70
Counted by: S.W.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena flos-aquae	558.8	30.04	Navicula decussis	1.7	0.09
Anacystis incerta	99.5	5.35	Navicula gregaria	1.7	0.09
Ankistrodesmus falcatus	1.7	0.09	Navicula sp.	1.7	0.09
Ankistrodesmus gelifactum	8.3	0.45	Nitzschia fonticola	1.7	0.09
Bicoeca paropsis	1.7	0.09	Nitzschia sp.	6.6	0.36
Centric diatom, unknown	131.0	7.04	Nitzschia sp. #1	1.7	0.09
Ceratium hirundinella	1.7	0.09	Ochromonas sp.	53.1	2.85
Chromulina parvula	9.9	0.53	Oocystis sp.	6.6	0.36
Chrysophycean flagellate spp.	101.1	5.44	Oscillatoria retzii	1.7	0.09
Crucigenia quadrata	6.6	0.36	Peridinium sp.	8.3	0.45
Crucigenia sp.	26.5	1.43	Rhizosolenia eriensis	5.0	0.27
Cryptomonas sp.	1.7	0.09	Rhizosolenia gracilis	3.3	0.18
Cyclotella kuetzingiana	1.7	0.09	Scenedesmus bicellularis	43.1	2.32
Cyclotella sp.	36.5	1.96	Scenedesmus quadricauda v. longispina	16.6	0.89
Cyclotella stelligera	137.6	7.40	Scenedesmus quadricauda	6.6	0.36
Dinobryon divergens	16.6	0.89	Scenedesmus sp.	9.9	0.53
Dinobryon flagellates	6.6	0.36	Stephanodiscus alpinus	1.7	0.09
Dinoflagellates	6.6	0.36	Stephanodiscus binderanus	1.7	0.09
Flagellate a	3.3	0.18	Stephanodiscus sp.	5.0	0.27
Flagellates	107.8	5.79	Stephanodiscus subtilis	11.6	0.62
Fragilaria crotonensis	3.3	0.18	Stephanodiscus tenuis	1.7	0.09
Fragilaria intermedia v. fallax	8.3	0.45	Synedra filiformis	1.7	0.09
Gloeocystis planctonica	74.6	4.01	Synedra ostenfeldii	1.7	0.09
Gloeocystis sp.	293.5	15.78	Synedra sp.	3.3	0.18
Kirchneriella sp.	11.6	0.62	Tabellaria fenestrata v. intermedia	3.3	0.18
Melosira italica	1.7	0.09	Tetraedron minimum	1.7	0.09
			Total	1860.3	100.0

15 JUL 76 DC-3

Number of forms = 30
Temperature(C) = 21.1
Diversity = 2.93
Counted by: N.S.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	459.3	30.98
Anacystis incerta	9.9	0.67
Ankistrodesmus falcatus	1.7	0.11
Ankistrodesmus sp. #3	3.3	0.22
Centric diatom, unknown	6.6	0.45
Chromulina #1	9.9	0.67
Chromulina parvula	21.6	1.45
Chrysophycean flagellate spp.	11.6	0.78
Cosmarium #1	3.3	0.22
Cryptomonas sp.	18.2	1.23
Cyclotella michiganiana	5.0	0.34
Cyclotella stelligera	112.7	7.61
Dinobryon bavaricum	5.0	0.34
Dinobryon divergens	58.0	3.91
Dinobryon sociale	9.9	0.67
Dinoflagellates	8.3	0.56
Flagellates	485.8	32.77
Fragilaria crotonensis	24.9	1.68
Gloeocystis planctonica	19.9	1.34
Gloeocystis sp.	107.8	7.27
Mougeotia sp.	3.3	0.22
Nitzschia acicularis	1.7	0.11
Nitzschia paleacea	1.7	0.11
Ochromonas sp.	41.5	2.80
Oscillatoria sp.	1.7	0.11
Rhizosolenia eriensis	1.7	0.11
Rhizosolenia gracilis	1.7	0.11
Scenedesmus bicellularis	33.2	2.24
Scenedesmus quadricauda v. longispina	6.6	0.45
Scenedesmus sp.	6.6	0.45
Total	1482.3	100.0

15 JUL 76 DC-4

Number of forms = 25
Temperature(C) = 21.3
Diversity = 3.23
Counted by: S.K.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	334.9	22.80
Ankistrodesmus gelifactum	5.0	0.34
Asterionella formosa	6.6	0.45
Ceratium hirundinella	1.7	0.11
Chrysophycean flagellate spp.	140.9	9.59
Crucigenia quadrata	26.5	1.81
Cryptomonas sp.	39.8	2.71
Cyclotella kuetzingiana	1.7	0.11
Cyclotella michiganiana	3.3	0.23
Cyclotella stelligera	122.7	8.35
Dinobryon divergens	131.0	8.92
Dinoflagellates	9.9	0.68
Flagellates	389.6	26.52
Fragilaria capucina v. lanceolata	3.3	0.23
Fragilaria crotonensis	16.6	1.13
Gloeocystis planctonica	99.5	6.77
Kirchneriella sp.	1.7	0.11
Melosira granulata	5.0	0.34
Ochromonas sp.	18.2	1.24
Oocystis sp.	31.5	2.14
Peridinium sp.	1.7	0.11
Scenedesmus balatonicus	26.5	1.81
Sphaerocystis sp.	41.5	2.82
Stephanodiscus subtilis	8.3	0.56
Synedra filiformis	1.7	0.11
Total	1469.0	100.0

15 JUL 76 DC-5

Number of forms = 39
Temperature(C) = 21.8

Diversity = 3.62
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora ovalis v. pediculus	1.7	0.19
Anabaena flos-aquae	33.2	3.75
Anacystis incerta	58.9	6.66
Ankistrodesmus gelifactum	39.8	4.50
Ankistrodesmus sp. #3	0.8	0.09
Asterionella formosa	4.1	0.47
Centric diatom, unknown	9.1	1.03
Ceratium hirundinella	3.3	0.38
Chromulina parvula	3.3	0.38
Chrysophycean flagellate spp.	38.1	4.32
Cryptomonas sp.	5.0	0.56
Cyclotella comensis	0.8	0.09
Cyclotella kuetzingiana	1.7	0.19
Cyclotella michiganiana	0.8	0.09
Cyclotella ocellata	0.8	0.09
Cyclotella sp.	17.4	1.97
Cyclotella stelligera	127.7	14.45
Dinobryon divergens	38.1	4.32
Dinobryon flagellates	2.5	0.28
Dinoflagellates	5.0	0.56
Flagellates	200.6	22.70
Fragilaria crotonensis	9.1	1.03
Fragilaria intermedia	0.8	0.09
Gloeocystis planctonica	113.6	12.85
Gloeocystis sp.	114.4	12.95
Green coccoid, unknown	1.7	0.19
Kirchneriella sp.	1.7	0.19
Nitzschia sp.	1.7	0.19
Ochromonas sp.	0.8	0.09
Oocystis sp.	19.9	2.25
Oscillatoria retzii	0.8	0.09
Rhizosolenia gracilis	0.8	0.09
Scenedesmus arcuatus	3.3	0.38
Scenedesmus bicellularis	13.3	1.50
Scenedesmus sp.	5.8	0.66
Stephanodiscus tenuis	0.8	0.09
Synedra filiformis	0.8	0.09
Synedra sp.	0.8	0.09
Tabellaria fenestrata v. intermedia	0.8	0.09
Total	883.7	100.0

15 JUL 76 DC-6

Number of forms = 23
Temperature(C) = 21.8

Diversity = 3.47
Counted by: S.K.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	46.4	2.82
Ankistrodesmus gelifactum	8.3	0.50
Asterionella formosa	3.3	0.20
Chrysophycean flagellate spp.	162.5	9.88
Crucigenia quadrata	26.5	1.61
Cryptomonas sp.	24.9	1.51
Cyclotella kuetzingiana	8.3	0.50
Cyclotella michiganiana	6.6	0.40
Cyclotella stelligera	147.6	8.97
Dinobryon divergens	69.6	4.23
Dinoflagellates	13.3	0.81
Flagellates	321.7	19.56
Fragilaria crotonensis	9.9	0.60
Gloeocystis planctonica	99.5	6.05
Gloeocystis sp.	150.9	9.17
Gomphosphaeria lacustris	331.6	20.16
Kirchneriella sp.	6.6	0.40
Mallomonas pseudocoronata	1.7	0.10
Ochromonas sp.	102.8	6.25
Oocystis sp.	86.2	5.24
Rhizosolenia eriensis	1.7	0.10
Rhizosolenia gracilis	1.7	0.10
Scenedesmus sp.	13.3	0.81
Total	1644.8	100.0

14 JUL 76 NDC.5-0

Number of forms = 74
Temperature(C) = ---

Diversity = 4.77
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	6.6	0.09
Achnanthes sp.	6.6	0.09
Amphora neglecta	6.6	0.09
Amphora ovalis	13.3	0.17
Amphora ovalis v. pediculus	6.6	0.09
Amphora sibirica	6.6	0.09
Amphora sp.	6.6	0.09
Anabaena flos-aquae	218.9	2.84
Ankistrodesmus gelifactum	6.6	0.09
Asterionella formosa	106.1	1.38
Centric diatom, unknown	610.2	7.91
Chromulina parvula	73.0	0.95
Chrysophycean flagellate spp.	19.9	0.26
Cosmarium #1	6.6	0.09
Cryptomonas sp.	59.7	0.77
Cyclotella cryptica	6.6	0.09
Cyclotella meneghiniana	26.5	0.34
Cyclotella ocellata	6.6	0.09
Cyclotella sp.	92.9	1.20
Cyclotella stelligera	119.4	1.55
Cyclotella temperei	13.3	0.17
Diatoma tenue v. elongatum	6.6	0.09
Dinobryon divergens	59.7	0.77
Dinobryon flagellates	13.3	0.17
Dinoflagellates	33.2	0.43
Flagellates	756.1	9.80
Fragilaria capucina	417.8	5.42
Fragilaria construens	13.3	0.17
Fragilaria crotonensis	1001.5	12.98
Fragilaria intermedia	13.3	0.17
Fragilaria intermedia v. fallax	258.7	3.35
Fragilaria pinnata	13.3	0.17
Fragilaria vaucheriae	6.6	0.09
Gloeocystis planctonica	205.6	2.67
Gloeocystis sp.	875.5	11.35
Golenkinia radiata	13.3	0.17
Golenkinia sp.	6.6	0.09
Green cells, undetermined	66.3	0.86
Green coccoid, unknown	33.2	0.43
Melosira granulata	106.1	1.38
Melosira italica	99.5	1.29
Mougeotia sp.	13.3	0.17
Navicula capitata	6.6	0.09
Navicula cryptocephala	6.6	0.09
Navicula gregaria	13.3	0.17
Navicula latens	13.3	0.17
Navicula nyassensis f. minor	6.6	0.09
Navicula sp.	6.6	0.09
Nitzschia acuta	13.3	0.17
Nitzschia dissipata	6.6	0.09
Nitzschia fonticola	13.3	0.17
Nitzschia paleacea	19.9	0.26
Nitzschia spiculoides	6.6	0.09
Nitzschia sp.	73.0	0.95
Ochromonas sp.	19.9	0.26
Pediastrum duplex v reticulatum	106.1	1.38
Peridinium sp.	6.6	0.09
Rhizosolenia eriensis	26.5	0.34
Rhizosolenia gracilis	19.9	0.26
Scenedesmus bicellularis	106.1	1.38
Scenedesmus bijuga	26.5	0.34
Scenedesmus quadricauda v. longispina	66.3	0.86
Scenedesmus quadricauda	39.8	0.52
Scenedesmus sp.	152.5	1.98
Scenedesmus spinosus	53.1	0.69
Scenedesmus tetradesmiformis	26.5	0.34
Stephanodiscus alpinus	86.2	1.12
Stephanodiscus minutus	238.8	3.10
Stephanodiscus sp.	145.9	1.89
Stephanodiscus subtilis	172.4	2.24
Stephanodiscus tenuis	172.4	2.24
Synedra filiformis	6.6	0.09
Synura sp.	437.7	5.68
Tabellaria fenestrata v. intermedia	185.7	2.41
Total	7713.2	100.0

15 JUL 76 NOC.5-1

Number of forms = 63
Temperature(C) = 23.0

Diversity = 4.40
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora ovalis	1.7	0.09
Amphora sp.	3.3	0.19
Anabaena flos-aquae	51.4	2.89
Ankistrodesmus falcatus	3.3	0.19
Ankistrodesmus gelifactum	6.6	0.37
Ankistrodesmus sp.	5.0	0.28
Asterionella formosa	9.9	0.56
Centric diatom, unknown	97.8	5.50
Chromulina #1	3.3	0.19
Chromulina parvula	28.2	1.58
Chrysophycean flagellate spp.	5.0	0.28
Crucigenia tetrapedia	26.5	1.49
Cryptomonas sp.	3.3	0.19
Cyclotella meneghiniana v. plana	3.3	0.19
Cyclotella michiganiana	1.7	0.09
Cyclotella sp.	41.5	2.33
Cyclotella stelligera	73.0	4.10
Diatoma tenue v. elongatum	1.7	0.09
Dinobryon divergens	69.6	3.91
Dinobryon flagellates	1.7	0.09
Dinoflagellates	5.0	0.28
Elakatothrix gelatinosa	3.3	0.19
Flagellates	391.3	21.99
Fragilaria capucina	21.6	1.21
Fragilaria crotonensis	79.6	4.47
Fragilaria intermedia	6.6	0.37
Fragilaria intermedia v. fallax	53.1	2.98
Fragilaria pinnata	6.6	0.37
Gloeocystis planctonica	71.3	4.01
Gloeocystis sp.	197.3	11.09
Gomphosphaeria lacustris	165.8	9.32
Green coccoid, unknown	11.6	0.65
Kirchneriella sp.	3.3	0.19
Mallomonas sp.	3.3	0.19
Melosira islandica	3.3	0.19
Melosira italica	6.6	0.37
Navicula cryptocephala v. veneta	1.7	0.09
Navicula decussis	1.7	0.09
Navicula sp.	5.0	0.28
Nitzschia confinis	1.7	0.09
Nitzschia fonticola	6.6	0.37
Nitzschia paleacea	8.3	0.47
Nitzschia sp.	6.6	0.37
Nitzschia sp. #1	3.3	0.19
Nitzschia sublinearis	1.7	0.09
Ochromonas sp.	13.3	0.75
Oocystis sp.	92.9	5.22
Peridinium sp.	1.7	0.09
Rhizosolenia gracilis	3.3	0.19
Scenedesmus acuminatus	11.6	0.65
Scenedesmus bicellularis	29.8	1.68
Scenedesmus bijuga	13.3	0.75
Scenedesmus quadricauda v. longispina	16.6	0.93
Scenedesmus quadricauda	9.9	0.56
Scenedesmus sp.	14.9	0.84
Scenedesmus tetradesmiformis	3.3	0.19
Stephanodiscus alpinus	3.3	0.19
Stephanodiscus minutus	6.6	0.37
Stephanodiscus sp.	5.0	0.28
Stephanodiscus subtilis	34.8	1.96
Stephanodiscus tenuis	6.6	0.37
Tabellaria fenestrata v. intermedia	6.6	0.37
Tetraedron caudatum	1.7	0.09
Total	1779.1	100.0

Major survey of July 1976, continued.

15 JUL 76 NDC.5-2

Number of forms = 64
Temperature(C) = ---

Diversity = 4.10
Counted by: S.W.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	0.8	0.06	Melosira italica	1.7	0.12
Achnanthes lanceolata v. dubia	0.8	0.06	Melosira sp.	2.5	0.18
Actinastrum hantzschii	9.9	0.73	Mougeotia sp.	0.8	0.06
Anabaena flos-aquae	211.4	15.52	Navicula decussis	0.8	0.06
Ankistrodesmus falcatus	1.7	0.12	Navicula sp.	3.3	0.24
Ankistrodesmus gelifactum	3.3	0.24	Navicula tripunctata	0.8	0.06
Asterionella formosa	5.8	0.43	Navicula viridula	0.8	0.06
Caloneis sp.	0.8	0.06	Nitzschia fonticola	2.5	0.18
Centric diatom, unknown	111.1	8.16	Nitzschia paleacea	2.5	0.18
Chromulina parvula	14.1	1.03	Nitzschia sp.	3.3	0.24
Chrysophycean flagellate spp.	34.0	2.50	Nitzschia sp. #1	5.0	0.37
Cryptomonas sp.	6.6	0.49	Nitzschia sp. #2	0.8	0.06
Cyclotella kuetzingiana	0.8	0.06	Ochromonas sp.	7.5	0.55
Cyclotella meneghiniana v. plana	1.7	0.12	Oocystis sp.	22.4	1.64
Cyclotella michiganiana	1.7	0.12	Peridinium sp.	2.5	0.18
Cyclotella sp.	37.3	2.74	Rhizosolenia eriensis	1.7	0.12
Cyclotella stelligera	90.4	6.63	Rhizosolenia gracilis	1.7	0.12
Dinobryon divergens	54.7	4.02	Scenedesmus acuminatus	3.3	0.24
Dinobryon flagellates	9.1	0.67	Scenedesmus bicellularis	19.9	1.46
Dinoflagellates	12.4	0.91	Scenedesmus quadricauda	6.6	0.49
Flagellates	282.7	20.75	Scenedesmus sp.	4.1	0.30
Fragilaria capucina	32.3	2.37	Scenedesmus spinosus	3.3	0.24
Fragilaria construens v. venter	1.7	0.12	Sphaerocystis sp.	9.9	0.73
Fragilaria crotonensis	17.4	1.28	Stephanodiscus alpinus	5.0	0.37
Fragilaria intermedia	9.9	0.73	Stephanodiscus minutus	1.7	0.12
Fragilaria intermedia v. fallax	19.1	1.40	Stephanodiscus niagarae	0.8	0.06
Fragilaria pinnata	0.8	0.06	Stephanodiscus sp.	6.6	0.49
Fragilaria sp.	0.8	0.06	Stephanodiscus subtilis	18.2	1.34
Gloeocystis planctonica	77.9	5.72	Stephanodiscus tenuis	5.8	0.43
Gloeocystis sp.	157.5	11.56	Synedra filiformis	0.8	0.06
Mallomonas pseudocoronata	0.8	0.06	Synedra minuscula	0.8	0.06
Melosira granulata	3.3	0.24	Tabellaria fenestrata v. intermedia	1.7	0.12
			Total	1362.1	100.0

Major survey of July 1976, continued.

14 JUL 76 NDC 1-0

Number of forms = 56
Temperature(C) = ---

Diversity = 4.64
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Acanthochloris sp.	19.9	0.49	Navicula tripunctata	6.6	0.16
Achnanthes sp.	6.6	0.16	Nitzschia acuta	6.6	0.16
Anabaena flos-aquae	66.3	1.64	Nitzschia bacata	26.5	0.66
Asterionella formosa	26.5	0.66	Nitzschia confinis	26.5	0.66
Centric diatom, unknown	344.9	8.55	Nitzschia dissipata	13.3	0.33
Chromulina parvula	66.3	1.64	Nitzschia fonticola	6.6	0.16
Chrysophycean flagellate spp.	145.9	3.62	Nitzschia kuetzingiana	19.9	0.49
Cocconeis placentula v. euglypta	6.6	0.16	Nitzschia paleacea	39.8	0.99
Cryptomonas sp.	26.5	0.66	Nitzschia sp.	26.5	0.66
Cyclotella meneghiniana v. plana	6.6	0.16	Nitzschia sp. #2	6.6	0.16
Cyclotella meneghiniana	6.6	0.16	Nitzschia tarda	13.3	0.33
Cyclotella stelligera	179.1	4.44	Ochromonas sp.	46.4	1.15
Diatoma tenue v. elongatum	6.6	0.16	Oocystis sp.	53.1	1.32
Diatoma vulgare	6.6	0.16	Opephora martyi	19.9	0.49
Dinobryon divergens	33.2	0.82	Pediastrum duplex v reticulatum	490.8	12.17
Dinoflagellates	19.9	0.49	Pennate diatom (undetermined)	6.6	0.16
Flagellates	424.5	10.53	Peridinium sp.	13.3	0.33
Fragilaria crotonensis	79.6	1.97	Rhizosolenia eriensis	6.6	0.16
Fragilaria intermedia	252.0	6.25	Rhizosolenia gracilis	13.3	0.33
Gloeocystis planctonica	318.3	7.89	Scenedesmus acuminatus	53.1	1.32
Gloeocystis sp.	39.8	0.99	Scenedesmus sp.	26.5	0.66
Melosira granulata	119.4	2.96	Staurastrum paradoxicum	6.6	0.16
Melosira granulata v. angustissima	26.5	0.66	Stephanodiscus minutus	199.0	4.93
Melosira italica	13.3	0.33	Stephanodiscus subtilis	225.5	5.59
Navicula costulata	13.3	0.33	Stephanodiscus tenuis	172.4	4.28
Navicula decussis	6.6	0.16	Synedra filiformis	19.9	0.49
Navicula platystoma v. pantocsekii	6.6	0.16	Synedra ulna	33.2	0.82
Navicula sp.	6.6	0.16	Tabellaria fenestrata v. intermedia	179.1	4.44
			Total	4032.4	100.0

Major survey of July 1976, continued.

15 JUL 76 NDC 1-1

Number of forms = 96
Temperature(C) = ---

Diversity = 4.34
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei	0.8	0.03
Achnanthes clevei v. rostrata	0.8	0.03
Amphora ovalis v. pediculus	0.8	0.03
Amphora sibirica	0.8	0.03
Amphora sp.	1.7	0.06
Amphora #3	0.8	0.03
Anabaena flos-aquae	41.5	1.50
Ankistrodesmus falcatus	1.7	0.06
Ankistrodesmus gelifactum	5.0	0.18
Ankistrodesmus setigerus	0.8	0.03
Asterionella formosa	15.8	0.57
Caloneis sp.	0.8	0.03
Centric diatom, unknown	152.5	5.53
Ceratium hirundinella	0.8	0.03
Chromulina #1	3.3	0.12
Chromulina parvula	99.5	3.60
Chrysophycean flagellate spp.	21.6	0.78
Cladophora sp.	3.3	0.12
Cosmarium #1	3.3	0.12
Crucigenia quadrata	17.4	0.63
Cryptomonad sp.	0.8	0.03
Cryptomonas sp.	16.6	0.60
Cyclotella comensis	1.7	0.06
Cyclotella kuetzingiana	1.7	0.06
Cyclotella meneghiniana v. plana	4.1	0.15
Cyclotella meneghiniana	6.6	0.24
Cyclotella michiganiana	1.7	0.06
Cyclotella ocellata	0.8	0.03
Cyclotella sp.	37.3	1.35
Cyclotella stelligera	20.7	0.75
Cymbella minuta	0.8	0.03
Diatoma tenue v. elongatum	1.7	0.06
Dinobryon divergens	48.9	1.77
Dinobryon flagellates	3.3	0.12
Dinoflagellates	9.1	0.33
Diploneis #1	0.8	0.03
Flagellates	719.6	26.07
Fragilaria capucina	9.1	0.33
Fragilaria crotonensis	102.0	3.69
Fragilaria intermedia	25.7	0.93
Fragilaria intermedia v. fallax	26.5	0.96
Gloeocystis planctonica	153.4	5.56
Gloeocystis sp.	412.0	14.93
Golenkinia radiata	0.8	0.03
Gomphonema sp.	0.8	0.03
Gomphosphaeria lacustris	194.8	7.06
Green coccoid, unknown	18.2	0.66
Kirchneriella contorta	3.3	0.12
Kirchneriella sp.	13.3	0.48
Mallomonas sp.	1.7	0.06
Melosira granulata	18.2	0.66
Melosira islandica	0.8	0.03
Melosira italica	26.5	0.96
Navicula #78	1.7	0.06
Navicula capitata	0.8	0.03
Navicula capitata v. luneburgensis	0.8	0.03
Navicula gastrum	0.8	0.03
Navicula latens	0.8	0.03
Navicula sp.	5.8	0.21
Navicula viridula	0.8	0.03
Nitzschia acicularis	4.1	0.15
Nitzschia acuta	0.8	0.03
Nitzschia confinis	1.7	0.06
Nitzschia fonticola	4.1	0.15
Nitzschia paleacea	5.8	0.21
Nitzschia sp.	10.8	0.39
Nitzschia sp. #1	4.1	0.15
Nitzschia sublinearis	0.8	0.03
Ochromonas sp.	27.4	0.99
Oocystis sp.	3.3	0.12
Pediastrum boryanum	3.3	0.12
Pediastrum duplex	17.4	0.63
Pediastrum simplex v. duodenarium	6.6	0.24
Peridinium sp.	5.0	0.18
Pinnularia sp.	0.8	0.03
Rhizosolenia eriensis	5.0	0.18
Rhizosolenia gracilis	5.0	0.18
Scenedesmus acuminatus	19.9	0.72
Scenedesmus acutus	3.3	0.12
Scenedesmus bicellularis	64.7	2.34
Scenedesmus bijuga	6.6	0.24
Scenedesmus quadricauda v. longispina	35.6	1.29
Scenedesmus quadricauda	19.9	0.72
Scenedesmus sp.	81.2	2.94
Scenedesmus tetradesmiformis	18.2	0.66
Staurastrum sp.	1.7	0.06
Stephanodiscus alpinus	12.4	0.45
Stephanodiscus minutus	2.5	0.09
Stephanodiscus niagarae	0.8	0.03
Stephanodiscus sp.	24.0	0.87
Stephanodiscus subtilis	19.9	0.72
Stephanodiscus tenuis	27.4	0.99
Synedra filiformis	4.1	0.15
Synedra sp.	1.7	0.06
Tabellaria fenestrata v. intermedia	40.6	1.47
Tetraedron sp.	0.8	0.03
Total	2759.8	100.0

Major survey of July 1976, continued.

15 JUL 76 NDC 1-2

Number of forms = 47
Temperature(C) = ---

Diversity = 3.77
Counted by: S.K.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	257.0	18.97
Anacystis incerta	41.5	3.06
Ankistrodesmus falcatus	2.5	0.18
Ankistrodesmus gelifactum	3.3	0.24
Ankistrodesmus sp. #3	0.8	0.06
Asterionella formosa	9.9	0.73
Centric diatom, unknown	30.7	2.26
Ceratium hirundinella	3.3	0.24
Chromulina parvula	39.0	2.88
Chrysophycean flagellate spp.	67.2	4.96
Cryptomonas sp.	9.1	0.67
Cyclotella comensis	3.3	0.24
Cyclotella cryptica	5.0	0.37
Cyclotella meneghiniana	1.7	0.12
Cyclotella ocellata	0.8	0.06
Cyclotella sp.	1.7	0.12
Cyclotella stelligera	53.1	3.92
Dinobryon divergens	98.7	7.28
Dinoflagellates	19.9	1.47
Flagellate a	0.8	0.06
Flagellates	352.3	26.01
Fragilaria capucina	12.4	0.92
Fragilaria crotonensis	29.0	2.14
Fragilaria intermedia	11.6	0.86
Fragilaria intermedia v. fallax	8.3	0.61
Fragilaria sp.	0.8	0.06
Gloeocystis planctonica	118.6	8.75
Gloeocystis sp.	70.5	5.20
Green coccoid, unknown	1.7	0.12
Green colony, unknown	6.6	0.49
Navicula decussis	0.8	0.06
Navicula sp.	0.8	0.06
Nitzschia kuetzingiana	0.8	0.06
Nitzschia sp.	1.7	0.12
Ochromonas sp.	19.1	1.41
Oocystis sp.	19.9	1.47
Pediastrum simplex	3.3	0.24
Peridinium sp.	6.6	0.49
Rhizosolenia eriensis	1.7	0.12
Scenedesmus acuminatus	9.9	0.73
Scenedesmus quadricauda	1.7	0.12
Scenedesmus sp.	11.6	0.86
Stephanodiscus minutus	4.1	0.31
Stephanodiscus tenuis	2.5	0.18
Tabellaria fenestrata v. intermedia	7.5	0.55
Tetraedron sp.	0.8	0.06
Tetrastrum staurogeniaeforme	0.8	0.06
Total	1354.6	100.0

14 JUL 76 NDC 2-0

Number of forms = 78
Temperature(C) = ---

Diversity = 4.91
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Achnanthes lanceolata	3.3	0.11	Navicula gastrum v. signata	3.3	0.11
Achnanthes minutissima	3.3	0.11	Navicula lanceolata	6.6	0.21
Amphipleura pellucida	3.3	0.11	Navicula pupula	3.3	0.11
Amphora ovalis	9.9	0.32	Navicula sp.	16.6	0.53
Amphora ovalis v. pediculus	6.6	0.21	Navicula stroesei	3.3	0.11
Anabaena flos-aquae	36.5	1.18	Navicula tripunctata	6.6	0.21
Asterionella formosa	69.6	2.25	Navicula viridula	9.9	0.32
Centric diatom, unknown	202.3	6.52	Nitzschia acicularis	9.9	0.32
Chrysophycean flagellate spp.	23.2	0.75	Nitzschia acuta	3.3	0.11
Cryptomonas sp.	9.9	0.32	Nitzschia capitellata	3.3	0.11
Cyclotella cryptica	6.6	0.21	Nitzschia confinis	23.2	0.75
Cyclotella meneghiniana	29.8	0.96	Nitzschia dissipata	3.3	0.11
Cyclotella sp.	16.6	0.53	Nitzschia fonticola	3.3	0.11
Cyclotella stelligera	109.4	3.53	Nitzschia fonticoloides	3.3	0.11
Cymatopleura solea	3.3	0.11	Nitzschia kuetzingiana	6.6	0.21
Diatoma tenue v. elongatum	19.9	0.64	Nitzschia liebetruthii	3.3	0.11
Diatoma vulgare	3.3	0.11	Nitzschia palea	3.3	0.11
Dinobryon divergens	36.5	1.18	Nitzschia paleacea	13.3	0.43
Dinoflagellates	49.7	1.60	Nitzschia spiculoides	3.3	0.11
Diploneis sp.	3.3	0.11	Nitzschia sp.	39.8	1.28
Flagellates	152.5	4.92	Nitzschia sp. #1	19.9	0.64
Fragilaria capucina	13.3	0.43	Nitzschia sp. #2	9.9	0.32
Fragilaria construens	3.3	0.11	Nitzschia sublinearis	9.9	0.32
Fragilaria crotonensis	245.4	7.91	Pediastrum duplex v reticulatum	126.0	4.06
Fragilaria intermedia	278.6	8.98	Rhizosolenia eriensis	3.3	0.11
Fragilaria intermedia v. fallax	46.4	1.50	Rhizosolenia gracilis	13.3	0.43
Fragilaria pinnata	16.6	0.53	Rhoicosphenia curvata	3.3	0.11
Fragilaria sp.	6.6	0.21	Scenedesmus sp.	59.7	1.93
Gloeocystis planctonica	215.5	6.95	Stephanodiscus alpinus	19.9	0.64
Gloeocystis sp.	13.3	0.43	Stephanodiscus hantzschii	9.9	0.32
Gomphonema sp.	6.6	0.21	Stephanodiscus minutus	225.5	7.27
Melosira distans v. alpigena	9.9	0.32	Stephanodiscus sp.	19.9	0.64
Melosira granulata	86.2	2.78	Stephanodiscus subtilis	139.3	4.49
Melosira granulata v. angustissima	23.2	0.75	Stephanodiscus tenuis	202.3	6.52
Mougeotia sp.	13.3	0.43	Surirella angusta	6.6	0.21
Navicula #78	3.3	0.11	Synedra delicatissima v. angustissima	3.3	0.11
Navicula capitata v. luneburgensis	3.3	0.11	Synedra filiformis	29.8	0.96
Navicula cryptocephala	3.3	0.11	Synedra sp.	3.3	0.11
Navicula cryptocephala v. intermedia	3.3	0.11	Tabellaria fenestrata v. intermedia	235.4	7.59
			Total	3100.6	100.0

Major survey of July 1976, continued.

15 JUL 76 NDC 2-1

Number of forms = 62
Temperature(C) = ---

Diversity = 4.32
Counted by: N.S.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Achnanthes sp.	1.7	0.11	Melosira granulata	1.7	0.11
Anabaena flos-aquae	185.7	12.22	Melosira italica	5.0	0.33
Anacystis incerta	165.8	10.91	Navicula latens	0.8	0.05
Anacystis thermalis	3.3	0.22	Navicula sp.	1.7	0.11
Ankistrodesmus gelifactum	2.5	0.16	Nitzschia acicularis	1.7	0.11
Asterionella formosa	4.1	0.27	Nitzschia confinis	0.8	0.05
Centric diatom, unknown	112.7	7.42	Nitzschia fonticola	1.7	0.11
Chromulina #1	0.8	0.05	Nitzschia palea	0.8	0.05
Chromulina parvula	14.9	0.98	Nitzschia paleacea	1.7	0.11
Chrysophycean flagellate spp.	45.6	3.00	Nitzschia sp.	2.5	0.16
Cladophora sp.	1.7	0.11	Nitzschia sp. #1	1.7	0.11
Cosmarium #1	2.5	0.16	Ochromonas sp.	26.5	1.75
Cryptomonad sp.	3.3	0.22	Oscillatoria sp.	2.5	0.16
Cryptomonas sp.	8.3	0.55	Pediastrum duplex	9.9	0.65
Cyclotella meneghiniana	3.3	0.22	Pediastrum simplex v. duodenarium	11.6	0.76
Cyclotella sp.	0.8	0.05	Rhizosolenia eriensis	0.8	0.05
Cyclotella stelligera	43.1	2.84	Rhizosolenia gracilis	3.3	0.22
Dinobryon cysts	0.8	0.05	Scenedesmus acuminatus	9.1	0.60
Dinobryon divergens	87.0	5.73	Scenedesmus bicellularis	18.2	1.20
Dinobryon flagellates	6.6	0.44	Scenedesmus quadricauda v. longispina	8.3	0.55
Dinobryon sociale	1.7	0.11	Scenedesmus quadricauda	13.3	0.87
Dinoflagellates	17.4	1.15	Scenedesmus sp.	18.2	1.20
Flagellates	207.3	13.64	Stephanodiscus alpinus	1.7	0.11
Fragilaria crotonensis	36.5	2.40	Stephanodiscus minutus	5.8	0.38
Fragilaria intermedia	19.1	1.25	Stephanodiscus niagarae	0.8	0.05
Fragilaria intermedia v. fallax	5.0	0.33	Stephanodiscus sp.	15.8	1.04
Gloeocystis planctonica	73.8	4.86	Stephanodiscus subtilis	9.1	0.60
Gloeocystis sp.	195.7	12.88	Stephanodiscus tenuis	9.1	0.60
Gomphosphaeria lacustris	49.7	3.27	Synedra filiformis	1.7	0.11
Green cells, undetermined	19.9	1.31	Synedra parasitica v. subconstricta	0.8	0.05
Green coccoid, unknown	0.8	0.05	Tabellaria fenestrata v. intermedia	11.6	0.76
			Total	1519.6	100.0

Major survey of July 1976, continued.

15 JUL 76 NDC 2-3

Number of forms = 32
Temperature(C) = ---

Diversity = 3.78
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	53.1	9.33
Ankistrodesmus gelifactum	3.3	0.58
Ankistrodesmus sp. #3	0.8	0.15
Asterionella formosa	2.5	0.44
Centric diatom, unknown	14.1	2.48
Chromulina #1	2.5	0.44
Chromulina parvula	3.3	0.58
Chrysophycean flagellate spp.	31.5	5.54
Closteriopsis longissima	0.8	0.15
Cryptomonas sp.	3.3	0.58
Cyclotella kuetzingiana	0.8	0.15
Cyclotella michiganiana	0.8	0.15
Cyclotella sp.	29.0	5.10
Cyclotella stelligera	68.8	12.10
Dinobryon divergens	45.6	8.02
Dinobryon flagellates	1.7	0.29
Dinoflagellates	1.7	0.29
Flagellates	81.2	14.29
Fragilaria crotonensis	23.2	4.08
Gloeocystis planctonica	48.1	8.45
Gloeocystis sp.	82.1	14.43
Gomphosphaeria lacustris	41.5	7.29
Green coccoid, unknown	0.8	0.15
Mallomonas sp.	2.5	0.44
Nitzschia fonticola	0.8	0.15
Ochromonas sp.	5.8	1.02
Oocystis sp.	13.3	2.33
Rhizosolenia eriensis	0.8	0.15
Stephanodiscus minutus	1.7	0.29
Stephanodiscus tenuis	1.7	0.29
Synedra filiformis	0.8	0.15
Tabellaria fenestrata v. intermedia	0.8	0.15
Total	568.7	100.0

Major survey of July 1976, continued.

14 JUL 76 NDC 4-0

Number of forms = 86
Temperature(C) = ---

Diversity = 4.91
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes sp.	3.3	0.06
Amphora ovalis v. pediculus	6.6	0.12
Amphora sp.	6.6	0.12
Ankistrodesmus gelifactum	6.6	0.12
Asterionella formosa	126.0	2.27
Centric diatom, unknown	1091.0	19.64
Cladophora sp.	6.6	0.12
Cocconeis placentula v. euglypta	6.6	0.12
Crucigenia tetrapedia	6.6	0.12
Cryptomonas sp.	29.8	0.54
Cyclotella kuetzingiana	3.3	0.06
Cyclotella meneghiniana	53.1	0.96
Cyclotella operculata	3.3	0.06
Cyclotella sp.	102.8	1.85
Cyclotella stelligera	169.1	3.04
Cymbella minuta	3.3	0.06
Diatoma tenue v. elongatum	46.4	0.84
Dinobryon divergens	63.0	1.13
Dinoflagellates	9.9	0.18
Diploneis parma	3.3	0.06
Flagellates	348.2	6.27
Fragilaria capucina v. lanceolata	36.5	0.66
Fragilaria capucina	132.6	2.39
Fragilaria construens	13.3	0.24
Fragilaria crotonensis	338.2	6.09
Fragilaria intermedia	149.2	2.69
Fragilaria intermedia v. fallax	162.5	2.93
Fragilaria pinnata	33.2	0.60
Fragilaria sp.	16.6	0.30
Gloeocystis planctonica	281.9	5.07
Gloeocystis sp.	278.6	5.01
Gomphonema sp.	6.6	0.12
Green coccoid, unknown	19.9	0.36
Kirchneriella sp.	3.3	0.06
Melosira granulata	149.2	2.69
Melosira islandica	26.5	0.48
Melosira italica	49.7	0.90
Navicula capitata	3.3	0.06
Navicula cryptocephala	3.3	0.06
Navicula cryptocephala v. intermedia	3.3	0.06
Navicula gregaria	3.3	0.06
Navicula latens	3.3	0.06
Navicula sp.	23.2	0.42
Navicula stroemii	3.3	0.06
Nitzschia acicularis	9.9	0.18
Nitzschia bacata	3.3	0.06
Nitzschia capitellata	3.3	0.06
Nitzschia dissipata	3.3	0.06
Nitzschia fonticola	9.9	0.18
Nitzschia kuetzingiana	9.9	0.18
Nitzschia palea	13.3	0.24
Nitzschia paleacea	19.9	0.36
Nitzschia sp.	112.7	2.03
Nitzschia sp. #1	13.3	0.24
Nitzschia sublinearis	6.6	0.12
Ochromonas sp.	3.3	0.06
Oscillatoria retzii	3.3	0.06
Oscillatoria sp.	19.9	0.36
Pediastrum duplex v reticulatum	53.1	0.96
Peridinium sp.	9.9	0.18
Rhizosolenia eriensis	43.1	0.78
Rhizosolenia gracilis	132.6	2.39
Rhoicosphenia curvata	9.9	0.18
Scenedesmus acuminatus	46.4	0.84
Scenedesmus bicellularis	99.5	1.79
Scenedesmus quadricauda v. longispina	59.7	1.07
Scenedesmus sp.	159.2	2.87
Scenedesmus tetradesmiformis	13.3	0.24
Schizothrix calcicola	6.6	0.12
Staurastrum sp.	6.6	0.12
Stephanodiscus alpinus	119.4	2.15
Stephanodiscus hantzschii	6.6	0.12
Stephanodiscus minutus	6.6	0.12
Stephanodiscus sp.	179.1	3.22
Stephanodiscus subtilis	155.9	2.81
Stephanodiscus tenuis	165.8	2.99
Synedra delicatissima v. angustissima	9.9	0.18
Synedra filiformis	9.9	0.18
Synedra ostenfeldii	9.9	0.18
Synedra sp.	6.6	0.12
Synedra ulna v. chaseana	6.6	0.12
Tabellaria fenestrata	19.9	0.36
Tabellaria fenestrata v. intermedia	126.0	2.27
Tetraedron caudatum	3.3	0.06
Tetraedron minimum	9.9	0.18
Tetraedron sp.	9.9	0.18
Total	5554.4	100.0

Major survey of July 1976, continued.

15 JUL 76 NDC 4-1

Number of forms = 50
Temperature(C) = ---

Diversity = 3.95
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Amphora sp.	1.7	0.11	Navicula gastrum v. signata	1.7	0.11
Anabaena flos-aquae	58.0	3.74	Navicula sp.	3.3	0.21
Ankistrodesmus gelifactum	5.0	0.32	Nitzschia kuetzingiana	3.3	0.21
Asterionella formosa	11.6	0.75	Nitzschia palea	1.7	0.11
Centric diatom, unknown	86.2	5.55	Nitzschia paleacea	1.7	0.11
Chrysophycean flagellate spp.	104.5	6.72	Nitzschia sp.	3.3	0.21
Cyclotella comensis	1.7	0.11	Nitzschia sp. #1	1.7	0.11
Cyclotella comta	1.7	0.11	Ochromonas sp.	3.3	0.21
Cyclotella meneghiniana	6.6	0.43	Oocystis sp.	13.3	0.85
Cyclotella michiganiana	3.3	0.21	Peridinium sp.	8.3	0.53
Cyclotella stelligera	107.8	6.94	Rhizosolenia gracilis	1.7	0.11
Diatoma tenue v. elongatum	1.7	0.11	Scenedesmus acuminatus	26.5	1.71
Dinobryon divergens	64.7	4.16	Scenedesmus quadricauda	19.9	1.28
Dinoflagellates	14.9	0.96	Scenedesmus sp.	11.6	0.75
Flagellates	217.2	13.98	Staurastrum sp.	1.7	0.11
Fragilaria crotonensis	54.7	3.52	Stephanodiscus minutus	41.5	2.67
Fragilaria intermedia	9.9	0.64	Stephanodiscus subtilis	5.0	0.32
Gloeocystis planctonica	71.3	4.59	Stephanodiscus tenuis	14.9	0.96
Gloeocystis sp.	84.6	5.44	Synedra demerarae	1.7	0.11
Gomphonema intricatum	1.7	0.11	Synedra filiformis	5.0	0.32
Gomphosphaeria lacustris	414.5	26.68	Synedra sp.	3.3	0.21
Green coccoid, unknown	6.6	0.43	Tabellaria fenestrata v. intermedia	16.6	1.07
Melosira granulata	16.6	1.07	Tetraedron caudatum	1.7	0.11
Melosira sp.	1.7	0.11	Tetrastrum staurogeniaeforme	8.3	0.53
Navicula capitata	3.3	0.21	Trachelomonas sp.	1.7	0.11
			Total	1553.6	100.0

15 JUL 76 NDC 4-3

Number of forms = 28
Temperature(C) = ---

Diversity = 3.34
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	87.0	11.88
Anacystis incerta	215.5	29.41
Ankistrodesmus sp. #3	0.8	0.11
Asterionella formosa	7.5	1.02
Centric diatom, unknown	32.3	4.41
Ceratium hirundinella	0.8	0.11
Chrysophycean flagellate spp.	9.1	1.24
Cyclotella kuetzingiana	0.8	0.11
Cyclotella michiganiana	0.8	0.11
Cyclotella sp.	24.9	3.39
Cyclotella stelligera	65.5	8.94
Dinobryon bavaricum	0.8	0.11
Dinobryon divergens	34.8	4.75
Dinoflagellates	3.3	0.45
Flagellates	82.9	11.31
Fragilaria crotonensis	21.6	2.94
Gloeocystis planctonica	29.8	4.07
Gloeocystis sp.	82.9	11.31
Green coccoid, unknown	4.1	0.57
Kirchneriella sp.	0.8	0.11
Mallomonas sp.	0.8	0.11
Navicula sp.	0.8	0.11
Oocystis sp.	19.9	2.71
Peridinium sp.	0.8	0.11
Rhizosolenia eriensis	0.8	0.11
Stephanodiscus sp.	1.7	0.23
Stephanodiscus subtilis	0.8	0.11
Stephanodiscus tenuis	0.8	0.11
Total	732.9	100.0

15 JUL 76 NDC 4-4

Number of forms = 36
Temperature(C) = ---

Diversity = 3.45
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	88.7	8.12
Ankistrodesmus gelifactum	0.8	0.08
Ankistrodesmus sp. #3	0.8	0.08
Asterionella formosa	1.7	0.15
Centric diatom, unknown	8.3	0.76
Ceratium hirundinella	0.8	0.08
Chromulina #1	1.7	0.15
Chromulina parvula	2.5	0.23
Chrysophycean flagellate spp.	37.3	3.42
Cryptomonas sp.	22.4	2.05
Cyclotella comensis	0.8	0.08
Cyclotella kuetzingiana	0.8	0.08
Cyclotella meneghiniana	0.8	0.08
Cyclotella michiganiana	2.5	0.23
Cyclotella sp.	28.2	2.58
Cyclotella stelligera	76.3	6.99
Dinobryon bavaricum	9.9	0.91
Dinobryon divergens	37.3	3.42
Dinobryon flagellates	3.3	0.30
Dinobryon sociale	0.8	0.08
Dinoflagellates	2.5	0.23
Flagellates	338.2	30.98
Fragilaria crotonensis	43.1	3.95
Gloeocystis planctonica	148.4	13.59
Gloeocystis sp.	106.1	9.72
Gomphosphaeria lacustris	74.6	6.83
Green coccoid, unknown	7.5	0.68
Kirchneriella sp.	3.3	0.30
Ochromonas sp.	5.8	0.53
Oocystis sp.	24.9	2.28
Rhizosolenia gracilis	0.8	0.08
Schizothrix calcicola	0.8	0.08
Stephanodiscus minutus	0.8	0.08
Stephanodiscus sp.	0.8	0.08
Synedra ostenfeldii	0.8	0.08
Tabellaria fenestrata v. intermedia	7.5	0.68
Total	1091.8	100.0

MAJOR SURVEY OF JULY 1976, CONTINUED.

15 JUL 76 NOC 7-1

NUMBER OF FORMS = 50
TEMPERATURE(C) = 22.9

DIVERSITY = 4.03
COUNTED BY: S.W.

TAXON	CELLS/ML	PERCENT
AMPHORA OVALIS	1.7	0.11
ANABAENA FLOS-AQUAE	74.6	4.93
ANKISTRODESMUS FALCATUM	9.9	0.66
ASTERIONELLA FORMOSA	9.9	0.66
CENTRIC DIATOM, UNKNOWN	76.3	5.04
CHROMULINA #1	9.9	0.66
CHROMULINA PARVULA	29.2	1.96
CHRYSOPHYCEAN FLAGELLATE SPP.	19.9	1.31
CRYPTOMONAS SP.	9.9	0.66
CYCLOTELLA MENEGHINIANA V. PLANA	3.3	0.22
CYCLOTELLA MICHIGANIANA	1.7	0.11
CYCLOTELLA SP.	21.6	1.42
CYCLOTELLA STELLIGERA	68.0	4.49
DINOBRYON DIVERGENS	114.4	7.56
DINOBRYON FLAGELLATES	11.6	0.77
DINOBRYON SOCIALE	3.3	0.22
DINOFLAGELLATES	21.6	1.42
FLAGELLATE A	1.7	0.11
FLAGELLATES	336.6	22.23
FRAGILARIA INTERMEDIA	14.9	0.99
FRAGILARIA INTERMEDIA V. FALLAX	3.3	0.22
GLOEOCYSTIS PLANCTONICA	152.5	10.08
GLOEOCYSTIS SP.	271.9	17.96
GREEN COCCOID, UNKNOWN	23.2	1.53
KIRCHNERIELLA SP.	5.0	0.33

TAXON	CELLS/ML	PERCENT
MALLOMONAS PSEUDOCORONATA	1.7	0.11
MELOSIRA GRANULATA	1.7	0.11
NAVICULA DECUSSIS	1.7	0.11
NAVICULA SP.	5.0	0.33
NITZSCHIA FONTICOLA	1.7	0.11
NITZSCHIA SP. #1	1.7	0.11
OCHROMONAS SP.	3.3	0.22
OOCYSTIS SP.	16.6	1.10
PERIDINIUM SP.	3.3	0.22
RHIZOSOLENIA ERIENSIS	3.3	0.22
RHIZOSOLENIA GRACILIS	3.3	0.22
SCENEDESMUS ARCUATUS	11.6	0.77
SCENEDESMUS BICELLULARIS	26.5	1.75
SCENEDESMUS QUADRICAUDA V. LONGISPINA	9.9	0.66
SCENEDESMUS QUADRICAUDA	23.2	1.53
SCENEDESMUS SP.	8.3	0.55
SELENASTRUM BIBRAIANUM	16.6	1.10
SPHAEROCYSTIS SP.	41.5	2.74
STEPHANODISCUS MINUTUS	1.7	0.11
STEPHANODISCUS SP.	5.0	0.33
STEPHANODISCUS SUBTILIS	19.9	1.31
STEPHANODISCUS TENUIS	5.0	0.33
SYNEDRA OSTENFELDII	1.7	0.11
TABELLARIA FENESTRATA V. INTERMEDIA	3.3	0.22
TETRAEDRON CAUDATUM	1.7	0.11
TOTAL	1513.8	100.0

15 JUL 76 NDC 7-3

Number of forms = 37 Diversity = 3.77
Temperature(C) = --- Counted by: S.K.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	83.7	6.34
Anacystis incerta	62.2	4.71
Ankistrodesmus gelifactum	3.3	0.25
Asterionella formosa	3.3	0.25
Ceratium hirundinella	1.7	0.13
Chrysophycean flagellate spp.	155.9	11.79
Crucigenia quadrata	23.2	1.76
Cryptomonas sp.	13.3	1.00
Cyclotella comta	0.8	0.06
Cyclotella kuetzingiana	0.8	0.06
Cyclotella michiganiana	1.7	0.13
Cyclotella sp.	8.3	0.63
Cyclotella stelligera	120.2	9.10
Dinobryon divergens	105.3	7.97
Dinobryon flagellates	9.9	0.75
Dinoflagellates	24.0	1.82
Flagellate a	0.8	0.06
Flagellates	329.1	24.91
Fragilaria construens	0.8	0.06
Fragilaria crotonensis	38.1	2.89
Gloeocystis planctonica	92.9	7.03
Gloeocystis sp.	68.8	5.21
Gomphosphaeria lacustris	41.5	3.14
Green coccoid, unknown	6.6	0.50
Kirchneriella sp.	3.3	0.25
Mougeotia sp.	4.1	0.31
Nitzschia dissipata	0.8	0.06
Nitzschia sp. #1	0.8	0.06
Ochromonas sp.	17.4	1.32
Oocystis sp.	8.3	0.63
Peridinium sp.	5.0	0.38
Sphaerocystis sp.	69.6	5.27
Stephanodiscus minutus	5.0	0.38
Stephanodiscus sp.	6.6	0.50
Stephanodiscus subtilis	0.8	0.06
Stephanodiscus tenuis	2.5	0.19
Synedra filiformis	0.8	0.06
Total	1321.5	100.0

15 JUL 76 NDC 7-5

Number of forms = 31 Diversity = 3.06
Temperature(C) = --- Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	88.7	10.21
Ankistrodesmus gelifactum	3.3	0.38
Ankistrodesmus sp. #3	0.8	0.10
Centric diatom, unknown	0.8	0.10
Chromulina #1	7.5	0.86
Chromulina parvula	8.3	0.95
Chrysophycean flagellate spp.	19.1	2.19
Cryptomonas sp.	9.1	1.05
Cyclotella michiganiana	0.8	0.10
Cyclotella sp.	7.5	0.86
Cyclotella stelligera	187.4	21.56
Dinobryon divergens	22.4	2.58
Dinobryon flagellates	1.7	0.19
Dinobryon sociale	0.8	0.10
Dinoflagellates	4.1	0.48
Flagellates	281.0	32.35
Fragilaria crotonensis	0.8	0.10
Gloeocystis planctonica	47.3	5.44
Gloeocystis sp.	114.4	13.17
Gomphosphaeria lacustris	27.4	3.15
Green coccoid, unknown	7.5	0.86
Mallomonas pseudocoronata	1.7	0.19
Ochromonas sp.	6.6	0.76
Oocystis sp.	10.8	1.24
Oscillatoria retzii	0.8	0.10
Rhizosolenia eriensis	0.8	0.10
Rhizosolenia gracilis	0.8	0.10
Scenedesmus bicellularis	0.8	0.10
Scenedesmus bijuga	3.3	0.38
Stephanodiscus sp.	0.8	0.10
Tetraedron minimum	1.7	0.19
Total	868.8	100.0

14 JUL 76 SDC.5-0

Number of forms = 74
Temperature(C) = ---

Diversity = 4.62
Counted by: S.W.

Taxon	Cells/ml	Percent
Actinastrum hantzschii	23.2	0.60
Amphora ovalis	3.3	0.09
Amphora ovalis v. pediculus	3.3	0.09
Amphora sp.	13.3	0.34
Anabaena flos-aquae	19.9	0.52
Ankistrodesmus gelifactum	16.6	0.43
Asterionella formosa	29.8	0.77
Centric diatom, unknown	573.7	14.89
Chromulina parvula	6.6	0.17
Chrysophycean flagellate spp.	16.6	0.43
Cocconeis diminuta	3.3	0.09
Cocconeis pediculus	3.3	0.09
Cosmarium #1	3.3	0.09
Cryptomonas sp.	53.1	1.38
Cyclotella auxospore	3.3	0.09
Cyclotella meneghiniana	26.5	0.69
Cyclotella michiganiana	3.3	0.09
Cyclotella ocellata	3.3	0.09
Cyclotella sp.	39.8	1.03
Cyclotella stelligera	86.2	2.24
Dinobryon divergens	59.7	1.55
Dinobryon flagellates	3.3	0.09
Dinoflagellates	6.6	0.17
Diploneis oculata	3.3	0.09
Flagellates	636.7	16.52
Fragilaria capucina	56.4	1.46
Fragilaria construens	6.6	0.17
Fragilaria crotonensis	232.1	6.02
Fragilaria intermedia	23.2	0.60
Fragilaria intermedia v. fallax	132.6	3.44
Fragilaria pinnata	9.9	0.26
Fragilaria sp.	13.3	0.34
Gloeocystis planctonica	86.2	2.24
Gloeocystis sp.	424.5	11.02
Green coccoid, unknown	16.6	0.43
Melosira granulata	29.8	0.77
Melosira islandica	6.6	0.17
Melosira italica	63.0	1.64
Mougeotia sp.	9.9	0.26
Navicula capitata v. luneburgensis	3.3	0.09
Navicula decussis	3.3	0.09
Navicula gastrum v. signata	3.3	0.09
Navicula menisculus v. upsaliensis	3.3	0.09
Navicula nyassensis f. minor	3.3	0.09
Navicula platystoma v. pantocsekii	3.3	0.09
Navicula sp.	6.6	0.17
Navicula tripunctata	3.3	0.09
Navicula tripunctata v. cuneata	6.6	0.17
Nitzschia acicularis	3.3	0.09
Nitzschia dissipata	3.3	0.09
Nitzschia fonticola	13.3	0.34
Nitzschia palea	3.3	0.09
Nitzschia paleacea	13.3	0.34
Nitzschia sp.	86.2	2.24
Nitzschia sp. #1	9.9	0.26
Pediastrum simplex v. duodenarium	49.7	1.29
Rhizosolenia eriensis	9.9	0.26
Rhizosolenia gracilis	13.3	0.34
Scenedesmus acuminatus	76.3	1.98
Scenedesmus bicellularis	33.2	0.86
Scenedesmus bijuga	3.3	0.09
Scenedesmus quadricauda v. longispina	36.5	0.95
Scenedesmus quadricauda	26.5	0.69
Scenedesmus sp.	175.8	4.56
Scenedesmus spinosus	6.6	0.17
Stephanodiscus alpinus	56.4	1.46
Stephanodiscus minutus	112.7	2.93
Stephanodiscus sp.	96.2	2.50
Stephanodiscus subtilis	56.4	1.46
Stephanodiscus tenuis	82.9	2.15
Surirella sp.	6.6	0.17
Synedra filiformis	9.9	0.26
Tabellaria fenestrata	3.3	0.09
Tabellaria fenestrata v. intermedia	76.3	1.98
Total	3853.3	100.0

15 JUL 76 SOC.E-1

NUMBER OF FORMS = 56
TEMPERATURE(C) = 22.7

DIVERSITY = 4.33
COUNTED BY: N.S.

TAXON	CELLS/ML	PERCENT
AMPHORA OVALIS	1.7	0.09
AMPHORA SP.	3.3	0.17
ANABAENA FLOS-AQUAE	152.5	7.72
ANACYSTIS INCERTA	49.7	2.52
ANKISTRODESMUS FALCATUM	1.7	0.09
ASTERIONELLA FORMOSA	3.3	0.17
CENTRIC DIATOM, UNKNOWN	84.6	4.28
CHROMULINA #1	11.6	0.59
CHROMULINA PARVULA	123.3	6.24
CHRYSOPHYCEAE FLAGELLATE SPP.	112.7	5.70
CRYPTOMONAS SP.	5.0	0.25
CYCLOTELLA MENEGHINIANA	3.3	0.17
CYCLOTELLA MICHIGANIANA	3.3	0.17
CYCLOTELLA SP.	5.0	0.25
CYCLOTELLA STELLIGERA	117.7	5.96
DINOBRYON DIVERGENS	124.4	6.29
DINOBRYON FLAGELLATES	3.3	0.17
DINOFLAGELLATES	28.2	1.43
FLAGELLATES	303.4	15.35
FRAGILARIA CAPUCINA	5.0	0.25
FRAGILARIA CROTONENSIS	43.1	2.18
FRAGILARIA INTERMEDIA	31.5	1.59
FRAGILARIA PINNATA	3.3	0.17
GLOEOCYSTIS PLANCTONICA	56.3	3.36
GLOEOCYSTIS SP.	318.3	16.11
GREEN CELLS, UNDETERMINED	1.7	0.09
MALLOMONAS PSEUDOCORONATA	6.6	0.34
MELOSIRA GRANULATA	3.3	0.17
MELOSIRA ISLANDICA	8.3	0.42
MELOSIRA ITALICA	3.3	0.17
MELOSIRA SP.	5.0	0.25
NITZSCHIA ACICULARIS	1.7	0.08
NITZSCHIA PALEACEA	1.7	0.08
NITZSCHIA SP.	6.6	0.34
NITZSCHIA SP. #1	1.7	0.08
OCHROMONAS SP.	58.0	2.94
OOCYSTIS SP.	5.0	0.25
PEDIASTRUM DUPLEX	49.7	2.52
PEDIASTRUM SIMPLEX V. DUODENARIUM	23.2	1.17
RHIZOSOLENIA ERIENSIS	1.7	0.08
RHIZOSOLENIA GRACILIS	6.6	0.34
SCENEDESMUS ACUMINATUS	11.6	0.59
SCENEDESMUS BICELLULARIS	33.2	1.68
SCENEDESMUS QUADRICAUDA	26.5	1.34
SCENEDESMUS SP.	13.3	0.67
STEPHANODISCUS MINUTUS	9.9	0.50
STEPHANODISCUS SP.	31.5	1.59
STEPHANODISCUS SUBTILIS	24.9	1.26
STEPHANODISCUS TENUIS	13.3	0.67
SYNEDRA FILIFORMIS	1.7	0.08
SYNEDRA OSTENFELDII	1.7	0.08
TABELLARIA FENESTRATA	3.3	0.17
TABELLARIA FENESTRATA V. INTERMEDIA	5.0	0.25
TETRAEDRON CAUDATUM	3.3	0.17
TETRAEDRON MINIMUM	1.7	0.08
TOTAL	1976.4	100.0

15 JUL 76 SDC.5-2

Number of forms = 54
Temperature(C) = ---

Diversity = 3.97
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora ovalis	3.3	0.22
Anabaena flos-aquae	18.2	1.20
Ankistrodesmus gelifactum	1.7	0.11
Asterionella formosa	6.6	0.44
Centric diatom, unknown	104.5	6.90
Chromulina #1	1.7	0.11
Chromulina parvula	9.9	0.66
Chrysophycean flagellate spp.	34.8	2.30
Cryptomonas sp.	5.0	0.33
Cyclotella operculata	5.0	0.33
Cyclotella sp.	14.9	0.99
Cyclotella stelligera	38.1	2.52
Dinobryon divergens	41.5	2.74
Dinobryon flagellates	3.3	0.22
Dinoflagellates	3.3	0.22
Flagellates	273.6	18.07
Fragilaria capucina	6.6	0.44
Fragilaria crotonensis	68.0	4.49
Fragilaria intermedia	36.5	2.41
Fragilaria intermedia v. fallax	5.0	0.33
Fragilaria pinnata	1.7	0.11
Gloeocystis planctonica	86.2	5.70
Gloeocystis sp.	184.0	12.16
Gomphonema sp.	1.7	0.11
Gomphosphaeria lacustris	348.2	23.00
Green coccoid, unknown	13.3	0.88
Lagerheimia sp.	1.7	0.11
Mallomonas sp.	3.3	0.22
Melosira granulata	1.7	0.11
Melosira italica	8.3	0.55
Mougeotia sp.	5.0	0.33
Navicula capitata	1.7	0.11
Navicula sp.	1.7	0.11
Nitzschia fonticola	1.7	0.11
Nitzschia sp.	5.0	0.33
Ochromonas sp.	13.3	0.88
Oocystis sp.	6.6	0.44
Peridinium sp.	3.3	0.22
Rhizosolenia eriensis	3.3	0.22
Rhizosolenia gracilis	1.7	0.11
Scenedesmus arcuatus	9.9	0.66
Scenedesmus bicellularis	26.5	1.75
Scenedesmus dimorphus	6.6	0.44
Scenedesmus quadricauda v. longispina	26.5	1.75
Scenedesmus quadricauda	3.3	0.22
Scenedesmus sp.	18.2	1.20
Staurastrum sp.	3.3	0.22
Stephanodiscus alpinus	3.3	0.22
Stephanodiscus minutus	3.3	0.22
Stephanodiscus sp.	6.6	0.44
Stephanodiscus subtilis	14.9	0.99
Stephanodiscus tenuis	1.7	0.11
Tabellaria fenestrata v. intermedia	11.6	0.77
Tetraedron caudatum	3.3	0.22
Total	1513.8	100.0

Major survey of July 1976, continued.

14 JUL 76 SDC 1-0

Number of forms = 62
Temperature(C) = ---

Diversity = 4.47
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Acanthochloris sp.	6.6	0.22	Navicula menisculus v. upsaliensis	3.3	0.11
Amphora ovalis	9.9	0.33	Navicula pupula	3.3	0.11
Amphora ovalis v. pediculus	3.3	0.11	Navicula sp.	6.6	0.22
Asterionella formosa	59.7	1.97	Navicula tripunctata	3.3	0.11
Centric diatom, unknown	245.4	8.08	Navicula viridula	3.3	0.11
Chrysophycean flagellate spp.	16.6	0.55	Nitzschia acicularis	6.6	0.22
Cryptomonas sp.	33.2	1.09	Nitzschia bacata	6.6	0.22
Cyclotella cryptica	13.3	0.44	Nitzschia confinis	3.3	0.11
Cyclotella meneghiniana	13.3	0.44	Nitzschia dissipata	6.6	0.22
Cyclotella stelligera	76.3	2.51	Nitzschia fonticola	3.3	0.11
Diatoma tenue v. elongatum	16.6	0.55	Nitzschia kuetzingiana	3.3	0.11
Diatoma vulgare	3.3	0.11	Nitzschia paleacea	13.3	0.44
Dinobryon divergens	33.2	1.09	Nitzschia sp.	16.6	0.55
Dinoflagellates	16.6	0.55	Nitzschia sp. #1	16.6	0.55
Flagellates	152.5	5.02	Nitzschia sublinearis	9.9	0.33
Fragilaria capucina	185.7	6.11	Oocystis sp.	66.3	2.18
Fragilaria construens	69.6	2.29	Opephora martyi	3.3	0.11
Fragilaria crotonensis	550.5	18.12	Rhizosolenia eriensis	6.6	0.22
Fragilaria intermedia	189.0	6.22	Rhizosolenia gracilis	26.5	0.87
Fragilaria intermedia v. fallax	53.1	1.75	Scenedesmus quadricauda	39.8	1.31
Gloeocystis planctonica	394.6	12.99	Scenedesmus sp.	36.5	1.20
Gloeocystis sp.	66.3	2.18	Stephanodiscus alpinus	3.3	0.11
Gomphonema olivaceum	9.9	0.33	Stephanodiscus minutus	99.5	3.28
Lagerheimia sp.	3.3	0.11	Stephanodiscus subtilis	16.6	0.55
Melosira granulata	73.0	2.40	Stephanodiscus tenuis	92.9	3.06
Melosira italica	13.3	0.44	Surirella ovata	3.3	0.11
Mougeotia sp.	9.9	0.33	Synedra filiformis	19.9	0.66
Navicula #78	3.3	0.11	Synedra minuscula	3.3	0.11
Navicula bacillum	3.3	0.11	Synedra ostenfeldii	3.3	0.11
Navicula capitata v. luneburgensis	6.6	0.22	Synedra ulna	6.6	0.22
Navicula latens	3.3	0.11	Tabellaria fenestrata v. intermedia	169.1	5.57
			Total	3037.6	100.0

15 JUL 76 SDC 1-1

Number of forms = 64
Temperature(C) = ---

Diversity = 4.20
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata	3.3	0.13
Anabaena flos-aquae	59.7	2.34
Ankistrodesmus gelifactum	6.6	0.26
Ankistrodesmus sp. #3	3.3	0.13
Asterionella formosa	16.6	0.65
Centric diatom, unknown	66.3	2.60
Chrysophycean flagellate spp.	129.3	5.08
Cryptomonas sp.	13.3	0.52
Cyclotella meneghiniana	3.3	0.13
Cyclotella sp.	3.3	0.13
Cyclotella stelligera	39.8	1.56
Dinobryon divergens	89.5	3.52
Dinobryon flagellates	6.6	0.26
Dinoflagellates	13.3	0.52
Flagellates	86.2	3.39
Fragilaria capucina	23.2	0.91
Fragilaria construens	21.6	0.85
Fragilaria crotonensis	43.1	1.69
Fragilaria intermedia	3.3	0.13
Fragilaria intermedia v. fallax	16.6	0.65
Fragilaria sp.	1.7	0.07
Gloeocystis planctonica	273.6	10.74
Gloeocystis sp.	364.8	14.32
Gomphonema sp.	1.7	0.07
Gomphosphaeria lacustris	447.7	17.58
Green coccoid, unknown	9.9	0.39
Kirchneriella sp.	18.2	0.72
Mallomonas sp.	1.7	0.07
Melosira granulata	1.7	0.07
Melosira italica	5.0	0.20
Mougeotia sp.	1.7	0.07
Navicula capitata	1.7	0.07
Navicula sp.	1.7	0.07
Navicula tripunctata	1.7	0.07
Nitzschia confinis	1.7	0.07
Nitzschia fonticola	5.0	0.20
Nitzschia sp.	6.6	0.26
Nitzschia sp. #1	5.0	0.20
Ochromonas sp.	39.8	1.56
Oocystis sp.	361.5	14.19
Peridinium sp.	19.9	0.78
Rhizosolenia eriensis	5.0	0.20
Rhizosolenia gracilis	5.0	0.20
Scenedesmus acuminatus	19.9	0.78
Scenedesmus bicellularis	91.2	3.58
Scenedesmus dimorphus	6.6	0.26
Scenedesmus quadricauda v. longispina	6.6	0.26
Scenedesmus quadricauda	16.6	0.65
Scenedesmus sp.	23.2	0.91
Sphaerocystis sp.	56.4	2.21
Staurastrum sp.	1.7	0.07
Stephanodiscus alpinus	9.9	0.39
Stephanodiscus minutus	1.7	0.07
Stephanodiscus niagarae	1.7	0.07
Stephanodiscus sp.	9.9	0.39
Stephanodiscus subtilis	26.5	1.04
Stephanodiscus tenuis	6.6	0.26
Surirella angusta	1.7	0.07
Synedra filiformis	1.7	0.07
Synedra sp.	1.7	0.07
Tabellaria fenestrata v. intermedia	21.6	0.85
Tetraedron caudatum	5.0	0.20
Tetraedron sp.	5.0	0.20
Treubaria setigerum	1.7	0.07
Total	2546.8	100.0

Major survey of July 1976, continued.

15 JUL 76 SDC 1-2

Number of forms = 38
Temperature(C) = ---

Diversity = 3.57
Counted by: N.S.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Anabaena flos-aquae	341.6	22.25	Gloeocystis planctonica	29.8	1.94
Anacystis thermalis	3.3	0.22	Gloeocystis sp.	202.3	13.17
Asterionella formosa	1.7	0.11	Green coccoid, unknown	1.7	0.11
Centric diatom, unknown	19.9	1.30	Mallomonas pseudocoronata	1.7	0.11
Chromulina #1	1.7	0.11	Melosira granulata	3.3	0.22
Chromulina parvula	51.4	3.35	Ochromonas sp.	87.9	5.72
Chrysophycean flagellate spp.	51.4	3.35	Oocystis sp.	13.3	0.86
Coelastrum sp.	23.2	1.51	Oscillatoria sp.	1.7	0.11
Crucigenia quadrata	6.6	0.43	Peridinium sp.	6.6	0.43
Cryptomonas sp.	1.7	0.11	Rhizosolenia gracilis	1.7	0.11
Cyclotella sp.	3.3	0.22	Scenedesmus acuminatus	6.6	0.43
Cyclotella stelligera	169.1	11.02	Scenedesmus bicellularis	16.6	1.08
Dinobryon bavaricum	1.7	0.11	Scenedesmus sp.	6.6	0.43
Dinobryon divergens	44.8	2.92	Sphaerocystis sp.	33.2	2.16
Dinoflagellates	14.9	0.97	Stephanodiscus minutus	5.0	0.32
Flagellates	321.7	20.95	Stephanodiscus sp.	6.6	0.43
Fragilaria capucina	1.7	0.11	Stephanodiscus subtilis	23.2	1.51
Fragilaria crotonensis	21.6	1.40	Stephanodiscus tenuis	1.7	0.11
Fragilaria sp.	3.3	0.22	Tetraedron muticum	1.7	0.11
			Total	1535.4	100.0

14 JUL 76 SDC 2-0

Number of forms = 82
Temperature(C) = ---

Diversity = 4.50
Counted by: S.W.

Taxon	Cells/ml	Percent
Acanthochloris sp.	33.2	0.58
Achnanthes sp.	6.6	0.12
Amphora sp.	6.6	0.12
Anabaena flos-aquae	36.5	0.63
Anacystis thermalis	13.3	0.23
Ankistrodesmus gelifactum	19.9	0.35
Ankistrodesmus sp. #3	3.3	0.06
Asterionella formosa	33.2	0.58
Centric diatom, unknown	1217.0	21.14
Chromulina parvula	29.8	0.52
Chrysophycean flagellate spp.	6.6	0.12
Cocconeis auxospore	3.3	0.06
Crucigenia quadrata	13.3	0.23
Cryptomonas sp.	19.9	0.35
Cyclotella meneghiniana v. plana	3.3	0.06
Cyclotella meneghiniana	26.5	0.46
Cyclotella ocellata	6.6	0.12
Cyclotella sp.	116.1	2.02
Cyclotella stelligera	59.7	1.04
Cymbella auxospore	3.3	0.06
Diatoma tenue v. elongatum	9.9	0.17
Diatoma vulgare	3.3	0.06
Dinobryon divergens	89.5	1.56
Dinobryon flagellates	3.3	0.06
Dinoflagellates	9.9	0.17
Flagellates	666.5	11.58
Fragilaria capucina	26.5	0.46
Fragilaria construens	9.9	0.17
Fragilaria crotonensis	328.3	5.70
Fragilaria intermedia	43.1	0.75
Fragilaria intermedia v. fallax	199.0	3.46
Fragilaria pinnata	13.3	0.23
Fragilaria sp.	3.3	0.06
Gloeocystis planctonica	480.8	8.35
Gloeocystis sp.	650.0	11.29
Green cells, undetermined	46.4	0.81
Green coccoid, unknown	29.8	0.52
Kirchneriella contorta	16.6	0.29
Melosira granulata	49.7	0.86
Melosira islandica	6.6	0.12
Melosira italica	63.0	1.09
Melosira sp.	16.6	0.29
Meridion circulare	3.3	0.06
Navicula capitata	3.3	0.06
Navicula decussis	3.3	0.06
Navicula platystoma v. pantocsekii	3.3	0.06
Navicula sp.	23.2	0.40
Navicula tripunctata	3.3	0.06
Nitzschia acicularis	6.6	0.12
Nitzschia fonticola	16.6	0.29
Nitzschia paleacea	19.9	0.35
Nitzschia sp.	122.7	2.13
Nitzschia sp. #1	16.6	0.29
Ochromonas sp.	13.3	0.23
Oocystis sp.	39.8	0.69
Oscillatoria retzii	3.3	0.06
Pediastrum simplex v. duodenarium	53.1	0.92
Pennate diatom (undetermined)	33.2	0.58
Peridinium sp.	3.3	0.06
Rhizosolenia eriensis	23.2	0.40
Rhizosolenia gracilis	26.5	0.46
Rhoicosphenia curvata	3.3	0.06
Scenedesmus acuminatus	46.4	0.81
Scenedesmus bicellularis	73.0	1.27
Scenedesmus quadricauda v. longispina	29.8	0.52
Scenedesmus sp.	165.8	2.88
Scenedesmus tetradesmiformis	13.3	0.23
Staurastrum sp.	3.3	0.06
Stephanodiscus alpinus	36.5	0.63
Stephanodiscus minutus	76.3	1.32
Stephanodiscus niagarae	3.3	0.06
Stephanodiscus sp.	159.2	2.77
Stephanodiscus subtilis	53.1	0.92
Stephanodiscus tenuis	132.6	2.30
Surirella angusta	3.3	0.06
Synedra filiformis	9.9	0.17
Synedra parasitica	3.3	0.06
Synedra sp.	6.6	0.12
Tabellaria fenestrata	6.6	0.12
Tabellaria fenestrata v. intermedia	82.9	1.44
Tetraedron caudatum	3.3	0.06
Tetraedron minimum	3.3	0.06
Total	5756.7	100.0

Major survey of July 1976, continued.

15 JUL 76 SDC 2-1

Number of forms = 39
Temperature(C) = ---

Diversity = 3.81
Counted by: S.K.

Taxon	Cells/ml	Percent
Amphora ovalis v. constricta	1.7	0.14
Anabaena flos-aquae	81.2	6.90
Ankistrodesmus falcatus	1.7	0.14
Ankistrodesmus jelifactum	3.3	0.28
Asterionella formosa	11.6	0.99
Centric diatom, unknown	38.1	3.24
Chrysophycean flagellate spp.	157.5	13.38
Cryptomonas sp.	1.7	0.14
Cyclotella meneghiniana	3.3	0.28
Cyclotella stelligera	107.8	9.15
Denticula tenuis v. crassula	1.7	0.14
Dinobryon divergens	56.4	4.79
Dinoflagellates	19.9	1.69
Flagellates	291.8	24.79
Fragilaria crotonensis	21.6	1.83
Fragilaria heideni	1.7	0.14
Fragilaria intermedia v. fallax	8.3	0.70
Fragilaria pinnata	5.0	0.42
Gloeocystis planctonica	74.6	6.34
Gloeocystis sp.	81.2	6.90
Kirchneriella sp.	1.7	0.14
Melosira granulata	8.3	0.70
Melosira islandica	1.7	0.14
Navicula capitata v. luneburgensis	1.7	0.14
Navicula exigua v capitata	1.7	0.14
Navicula pupula v. capitata	1.7	0.14
Nitzschia palea	1.7	0.14
Ochromonas sp.	86.2	7.32
Peridinium sp.	11.6	0.99
Rhizosolenia eriensis	1.7	0.14
Scenedesmus balatonicus	13.3	1.13
Scenedesmus quadricauda	6.6	0.56
Scenedesmus sp.	23.2	1.97
Stephanodiscus minutus	14.9	1.27
Stephanodiscus subtilis	5.0	0.42
Stephanodiscus tenuis	13.3	1.13
Synedra filiformis	1.7	0.14
Tabellaria fenestrata v. intermedia	9.9	0.85
Trachelomonas sp.	1.7	0.14
Total	1177.2	100.0

Major survey of July 1976, continued.

15 JUL 76 SDC 2-3

Number of forms = 43
Temperature(C) = ---

Diversity = 3.53
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	330.8	29.25
Anacystis thermalis	6.6	0.59
Ankistrodesmus gelifactum	9.1	0.81
Ankistrodesmus sp. #3	2.5	0.22
Centric diatom, unknown	21.6	1.91
Chromulina #1	1.7	0.15
Chromulina parvula	1.7	0.15
Chrysophycean flagellate spp.	43.9	3.89
Crucigenia quadrata	3.3	0.29
Cyclotella comensis	1.7	0.15
Cyclotella ocellata	0.8	0.07
Cyclotella sp.	9.1	0.81
Cyclotella stelligera	102.8	9.09
Dinobryon divergens	47.3	4.18
Dinobryon flagellates	8.3	0.73
Dinoflagellates	4.1	0.37
Flagellates	112.7	9.97
Fragilaria crotonensis	6.6	0.59
Fragilaria intermedia	6.6	0.59
Fragilaria sp.	0.8	0.07
Gloeocystis planctonica	90.4	7.99
Gloeocystis sp.	133.5	11.80
Gomphosphaeria lacustris	112.7	9.97
Green coccoid, unknown	9.9	0.88
Kirchneriella sp.	3.3	0.29
Lagerheimia sp.	0.8	0.07
Mallomonas sp.	0.8	0.07
Nitzschia sp.	1.7	0.15
Ochromonas sp.	6.6	0.59
Oocystis sp.	17.4	1.54
Pediastrum duplex v. clathratum	13.3	1.17
Peridinium sp.	2.5	0.22
Rhizosolenia eriensis	0.8	0.07
Rhizosolenia gracilis	0.8	0.07
Scenedesmus bicellularis	5.0	0.44
Scenedesmus bijuga	1.7	0.15
Scenedesmus sp.	1.7	0.15
Staurastrum sp.	0.8	0.07
Stephanodiscus alpinus	0.8	0.07
Stephanodiscus sp.	1.7	0.15
Stephanodiscus tenuis	0.8	0.07
Synedra filiformis	0.8	0.07
Tabellaria fenestrata v. intermedia	0.8	0.07
Total	1130.8	100.0

14 JUL 76 SDC 4-0

Number of forms = 53
Temperature(C) = ---

Diversity = 4.11
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes sp.	3.3	0.16
Amphora sp.	3.3	0.16
Amphora #3	3.3	0.16
Ankistrodesmus gelifactum	9.9	0.49
Asterionella formosa	6.6	0.33
Centric diatom, unknown	467.6	23.19
Chromulina parvula	13.3	0.66
Chrysophycean flagellate spp.	16.6	0.82
Cryptomonas sp.	13.3	0.66
Cyclotella meneghiniana v. plana	3.3	0.16
Cyclotella meneghiniana	13.3	0.66
Cyclotella sp.	49.7	2.47
Cyclotella stelligera	23.2	1.15
Cyclotella temperei	3.3	0.16
Diatoma tenue v. elongatum	3.3	0.16
Dinobryon divergens	39.8	1.97
Dinobryon flagellates	13.3	0.66
Dinoflagellates	3.3	0.16
Flagellates	315.0	15.63
Fragilaria crotonensis	9.9	0.49
Fragilaria intermedia	6.6	0.33
Fragilaria intermedia v. fallax	23.2	1.15
Fragilaria pinnata	23.2	1.15
Fragilaria sp.	6.6	0.33
Gloeocystis planctonica	165.8	8.22
Gloeocystis sp.	255.3	12.66
Gomphonema sp.	3.3	0.16
Green coccoid, unknown	6.6	0.33
Melosira granulata	3.3	0.16
Melosira italica	3.3	0.16
Meridion circulare	3.3	0.16
Navicula decussis	3.3	0.16
Navicula sp.	6.6	0.33
Nitzschia fonticola	9.9	0.49
Nitzschia kuetzingiana	3.3	0.16
Nitzschia palea	3.3	0.16
Nitzschia paleacea	9.9	0.49
Nitzschia sp.	49.7	2.47
Nitzschia sp. #1	23.2	1.15
Ochromonas sp.	19.9	0.99
Oocystis sp.	13.3	0.66
Rhizosolenia eriensis	6.6	0.33
Rhizosolenia gracilis	6.6	0.33
Scenedesmus acuminatus	13.3	0.66
Scenedesmus bicellularis	36.5	1.81
Scenedesmus sp.	76.3	3.78
Stephanodiscus alpinus	9.9	0.49
Stephanodiscus minutus	33.2	1.64
Stephanodiscus sp.	66.3	3.29
Stephanodiscus subtilis	63.0	3.13
Stephanodiscus tenuis	23.2	1.15
Surirella sp.	3.3	0.16
Tabellaria fenestrata v. intermedia	19.9	0.99
Total	2016.2	100.0

15 JUL 76 SDC 4-1

Number of forms = 37 Diversity = 3.60
Temperature(C) = --- Counted by: N.S.

Taxon	Cells/ml	Percent
Amphora ovalis	1.7	0.12
Anabaena flos-aquae	325.0	24.26
Ankistrodesmus gelifactum	1.7	0.12
Ankistrodesmus setigerus	1.7	0.12
Asterionella formosa	1.7	0.12
Centric diatom, unknown	19.9	1.49
Chromulina #1	9.9	0.74
Chromulina parvula	99.5	7.43
Chrysophycean flagellate spp.	33.2	2.48
Cladophora sp.	3.3	0.25
Crucigenia quadrata	6.6	0.50
Cryptomonas sp.	1.7	0.12
Cyclotella michiganiana	1.7	0.12
Cyclotella stelligera	74.6	5.57
Dinobryon divergens	34.8	2.60
Dinobryon sociale	1.7	0.12
Dinoflagellates	19.9	1.49
Flagellates	150.9	11.26
Fragilaria intermedia	5.0	0.37
Gloeocystis planctonica	13.3	0.99
Gloeocystis sp.	273.6	20.42
Gomphosphaeria aponina	99.5	7.43
Mallomonas pseudocoronata	1.7	0.12
Nitzschia fonticola	1.7	0.12
Nitzschia paleacea	1.7	0.12
Ochromonas sp.	36.5	2.72
Oocystis sp.	29.8	2.23
Peridinium sp.	5.0	0.37
Rhizosolenia gracilis	1.7	0.12
Scenedesmus bicellularis	9.9	0.74
Scenedesmus quadricauda	6.6	0.50
Scenedesmus sp.	19.9	1.49
Stephanodiscus minutus	13.3	0.99
Stephanodiscus sp.	11.6	0.87
Stephanodiscus subtilis	13.3	0.99
Stephanodiscus tenuis	3.3	0.25
Tabellaria fenestrata v. intermedia	3.3	0.25
Total	1339.7	100.0

15 JUL 76 SDC 4-3

Number of forms = 20 Diversity = 3.05
Temperature(C) = --- Counted by: S.K.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	34.8	2.44
Ankistrodesmus gelifactum	3.3	0.23
Ceratium hirundinella	1.7	0.12
Chrysophycean flagellate spp.	296.8	20.81
Crucigenia quadrata	46.4	3.26
Cyclotella kuetzingiana	3.3	0.23
Cyclotella sp.	3.3	0.23
Cyclotella stelligera	225.5	15.81
Dinobryon divergens	11.6	0.81
Dinoflagellates	5.0	0.35
Flagellates	290.2	20.35
Fragilaria pinnata	1.7	0.12
Gloeocystis planctonica	59.7	4.19
Gloeocystis sp.	266.9	18.72
Ochromonas sp.	36.5	2.56
Oocystis sp.	49.7	3.49
Rhizosolenia gracilis	1.7	0.12
Sphaerocystis sp.	82.9	5.81
Stephanodiscus tenuis	1.7	0.12
Trachelomonas sp.	3.3	0.23
Total	1425.9	100.0

15 JUL 76 SDC 4-4

Number of forms = 28
Temperature(C) = ---

Diversity = 2.91
Counted by: S.W.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	1203.8	42.46
Anacystis incerta	215.5	7.60
Ankistrodesmus gelifactum	3.3	0.12
Ankistrodesmus sp. #3	1.7	0.06
Asterionella formosa	8.3	0.29
Centric diatom, unknown	14.9	0.53
Ceratium hirundinella	1.7	0.06
Chromulina #1	8.3	0.29
Chromulina parvula	13.3	0.47
Chrysophycean flagellate spp.	68.0	2.40
Crucigenia quadrata	26.5	0.94
Cryptomonas sp.	9.9	0.35
Cyclotella kuetzingiana	1.7	0.06
Cyclotella sp.	11.6	0.41
Cyclotella stelligera	182.4	6.43
Dinobryon divergens	24.9	0.88
Dinobryon flagellates	1.7	0.06
Dinoflagellates	9.9	0.35
Flagellate a	3.3	0.12
Flagellates	344.9	12.16
Gloeocystis planctonica	112.7	3.98
Gloeocystis sp.	162.5	5.73
Gomphosphaeria lacustris	331.6	11.70
Green coccoid, unknown	21.6	0.76
Oocystis sp.	19.9	0.70
Peridinium sp.	1.7	0.06
Scenedesmus balatonicus	26.5	0.94
Scenedesmus bicellularis	3.3	0.12
Total	2835.3	100.0

15 JUL 76 SDC 7-1

NUMBER OF FORMS = 30
TEMPERATURE(C) = 23.3

DIVERSITY = 3.73
COUNTED BY: S.K.

TAXON	CELLS/ML	PERCENT
ANABAENA FLOS-AQUAE	41.5	3.15
ANKISTRODESMUS GELIFACTUM	3.3	0.25
ASTERIONELLA FORMOSA	3.3	0.25
CENTRIC DIATOM, UNKNOWN	71.3	5.42
CHRYSOPHYCEAN FLAGELLATE SPP.	155.9	11.84
CRYPTOMONAS SP.	9.9	0.75
CYCLOTELLA MENEGHINIANA V. PLANA	1.7	0.13
CYCLOTELLA STELLIGERA	58.0	4.41
DINOBRYON DIVERGENS	32.9	6.30
DINOFLAGELLATES	16.6	1.26
FLAGELLATES	341.6	25.94
FRAGILARIA CROTONENSIS	21.6	1.64
FRAGILARIA INTERMEDIA	19.9	1.51
FRAGILARIA SP.	1.7	0.13
GLOEOCYSTIS PLANCTONICA	149.2	11.34
GLOEOCYSTIS SP.	165.8	12.59
GREEN COCCOID, UNKNOWN	11.6	0.88
MELOSIRA GRANULATA	3.3	0.25
NAVICULA ANGLICA V. SIGNATA	5.0	0.38
NAVICULA PLATYSTOMA V. PANTOCSEKII	1.7	0.13
NAVICULA SP.	3.3	0.25
NAVICULA TRIPUNCTATA	1.7	0.13
NAVICULA VIRIDULA	1.7	0.13
NITZSCHIA KUETZINGIANA	1.7	0.13
NITZSCHIA SP.	5.0	0.38
NITZSCHIA SP. #1	1.7	0.13
OCHROMONAS SP.	18.2	1.39
OOCYSTIS SP.	19.9	1.51
PERIDINIUM SP.	6.6	0.50
RHIZOSOLENIA GRACILIS	1.7	0.13
SCENEDESMUS ACUTUS	5.0	0.38
SCENEDESMUS ARCUATUS	13.3	1.01
SCENEDESMUS QUADRICAUDA	13.3	1.01
SCENEDESMUS SP.	9.9	0.76
STEPHANODISCUS MINUTUS	6.6	0.50
STEPHANODISCUS SUBTILIS	1.7	0.13
SYNEDRA FILIFORMIS	1.7	0.13
TABELLARIA FENESTRATA V. INTERMEDIA	13.3	1.01
TETRASTRUM STAUROGENIAEFORME	24.9	1.89
TOTAL	1316.5	100.0

15 JUL 76 SDC 7-3

Number of forms = 25
Temperature(C) = ---

Diversity = 1.19
Counted by: S.K.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	4732.1	83.65
Ankistrodesmus gelifactum	5.0	0.09
Ankistrodesmus sp. #3	1.7	0.03
Characium sp.	1.7	0.03
Chrysophycean flagellate spp.	76.3	1.35
Crucigenia quadrata	13.3	0.23
Cryptomonas sp.	11.6	0.21
Cyclotella stelligera	56.4	1.00
Dinobryon divergens	111.1	1.96
Dinoflagellates	24.9	0.44
Flagellates	243.7	4.31
Fragilaria crotonensis	29.8	0.53
Fragilaria intermedia	3.3	0.06
Gloeocystis planctonica	182.4	3.22
Gloeocystis sp.	73.0	1.29
Green coccoid, unknown	9.9	0.18
Mallomonas pseudocoronata	5.0	0.09
Melosira granulata	5.0	0.09
Ochromonas sp.	16.6	0.29
Oocystis sp.	29.8	0.53
Oscillatoria sp.	1.7	0.03
Peridinium sp.	5.0	0.09
Stephanodiscus minutus	11.6	0.21
Stephanodiscus tenuis	1.7	0.03
Tabellaria fenestrata v. intermedia	5.0	0.09
Total	5657.3	100.0

15 JUL 76 SDC 7-5

Number of forms = 31
Temperature(C) = ---

Diversity = 3.46
Counted by: N.S.

Taxon	Cells/ml	Percent
Anabaena flos-aquae	3.3	0.28
Anacystis incerta	13.3	1.13
Anacystis thermalis	3.3	0.28
Ankistrodesmus sp. #3	3.3	0.28
Ceratium hirundinella	0.8	0.07
Chromulina #1	8.3	0.70
Chromulina parvula	33.2	2.81
Chrysophycean flagellate spp.	95.3	8.09
Crucigenia quadrata	13.3	1.13
Cryptomonas sp.	14.1	1.20
Cyclotella kuetzingiana	1.7	0.14
Cyclotella michiganiana	1.7	0.14
Cyclotella operculata	1.7	0.14
Cyclotella sp.	5.0	0.42
Cyclotella stelligera	165.0	14.00
Dinobryon cysts	0.8	0.07
Dinobryon divergens	45.6	3.87
Dinobryon flagellates	13.3	1.13
Dinoflagellates	13.3	1.13
Flagellate a	3.3	0.28
Flagellates	262.0	22.24
Gloeocystis planctonica	25.7	2.18
Gloeocystis sp.	149.2	12.67
Gomphosphaeria lacustris	149.2	12.67
Green cells, undetermined	16.6	1.41
Mallomonas pseudocoronata	1.7	0.14
Navicula cryptocephala v. veneta	0.8	0.07
Ochromonas sp.	130.2	11.05
Rhizosolenia gracilis	0.8	0.07
Stephanodiscus sp.	0.8	0.07
Tabellaria fenestrata	1.7	0.14
Total	1178.1	100.0

Density (cells/ml) of the taxa of phytoplankton found in the major survey of October 1976.

13 OCT 76 DC-0

Number of forms = 57
Temperature(C) = ---

Diversity = 4.47
Counted by: S.K.

Taxon	Cells/ml	Percent
Amphipleura pellucida	3.3	0.25
Amphora ovalis	5.0	0.38
Amphora sp.	3.3	0.25
Anacystis incerta	199.0	15.09
Anacystis thermalis	53.1	4.03
Ankistrodesmus falcatus	1.7	0.13
Asterionella formosa	86.2	6.54
Centric diatom, unknown	109.4	8.30
Crucigenia quadrata	26.5	2.01
Cryptomonas sp.	6.6	0.50
Cyclotella comensis	144.3	10.94
Cyclotella kuetzingiana	6.6	0.50
Cyclotella michiganiana	73.0	5.53
Cyclotella stelligera	3.3	0.25
Dinoflagellates	3.3	0.25
Flagellates	140.9	10.69
Fragilaria crotonensis	58.0	4.40
Fragilaria intermedia	23.2	1.76
Fragilaria pinnata	3.3	0.25
Gloeocystis planctonica	58.0	4.40
Gloeocystis sp.	16.6	1.26
Golenkinia sp.	1.7	0.13
Melosira granulata	24.9	1.89
Melosira granulata v. angustissima	9.9	0.75
Navicula #78	6.6	0.50
Navicula cryptocephala	1.7	0.13
Navicula cryptocephala v. intermedia	1.7	0.13
Navicula decussis	8.3	0.63
Navicula lanceolata	1.7	0.13
Navicula latens	1.7	0.13
Navicula menisculus	1.7	0.13
Navicula pupula	1.7	0.13
Navicula radiosa v. tenella	1.7	0.13
Navicula sp.	1.7	0.13
Nitzschia acicularis	3.3	0.25
Nitzschia bacata	1.7	0.13
Nitzschia capitellata	5.0	0.38
Nitzschia dissipata	3.3	0.25
Nitzschia fonticola	6.6	0.50
Nitzschia kuetzingiana	1.7	0.13
Nitzschia paleacea	3.3	0.25
Nitzschia sp.	6.6	0.50
Nitzschia sp. #1	6.6	0.50
Ochromonas sp.	28.2	2.14
Pennate diatom (undetermined)	5.0	0.38
Scenedesmus acuminatus	13.3	1.01
Scenedesmus quadricauda v. longispina	16.6	1.26
Scenedesmus sp.	23.2	1.76
Stephanodiscus minutus	33.2	2.52
Stephanodiscus subtilis	19.9	1.51
Stephanodiscus tenuis	3.3	0.25
Surirella angusta	1.7	0.13
Synedra delicatissima v. angustissima	1.7	0.13
Synedra filiformis	29.8	2.26
Synedra sp.	1.7	0.13
Tabellaria fenestrata v. intermedia	11.6	0.88
Tetraedron caudatum	1.7	0.13
Total	1318.2	100.0

14 OCT 76 DC-1

Number of forms = 74
Temperature(C) = ---

Diversity = 4.46
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphora calumetica	3.3	0.08
Amphora sibirica	3.3	0.08
Amphora sp.	9.9	0.24
Amphora #3	3.3	0.08
Anabaena flos-aquae	23.2	0.56
Ankistrodesmus falcatus	3.3	0.08
Ankistrodesmus gelifactum	3.3	0.08
Ankistrodesmus sp. #3	9.9	0.24
Asterionella formosa	53.1	1.27
Centric diatom, unknown	86.2	2.07
Chrysophycean flagellate spp.	43.1	1.04
Crucigenia quadrata	66.3	1.59
Cryptomonas sp.	33.2	0.80
Cyclotella comensis	152.5	3.67
Cyclotella kuetzingiana	3.3	0.08
Cyclotella meneghiniana	13.3	0.32
Cyclotella michiganiana	13.3	0.32
Cyclotella sp.	136.0	3.27
Cyclotella stelligera	3.3	0.08
Cymatopleura solea	3.3	0.08
Diatoma vulgare	3.3	0.08
Dinobryon flagellates	3.3	0.08
Dinoflagellates	19.9	0.48
Flagellates	477.5	11.47
Fragilaria crotonensis	248.7	5.98
Fragilaria intermedia	66.3	1.59
Fragilaria pinnata	9.9	0.24
Gloeocystis planctonica	305.1	7.33
Gloeocystis sp.	699.7	16.81
Golenkinia radiata	3.3	0.08
Gomphosphaeria lacustris	630.1	15.14
Green coccoid, unknown	33.2	0.80
Kirchneriella contorta	6.6	0.16
Melosira granulata	79.6	1.91
Melosira granulata v. angustissima	3.3	0.08
Melosira islandica	6.6	0.16
Mougeotia sp.	19.9	0.48
Navicula cryptocephala	3.3	0.08
Navicula decussis	3.3	0.08
Navicula latens	3.3	0.08
Navicula sp.	16.6	0.40
Navicula tripunctata	3.3	0.08
Nitzschia acicularis	43.1	1.04
Nitzschia bacata	3.3	0.08
Nitzschia dissipata	3.3	0.08
Nitzschia fonticola	6.6	0.16
Nitzschia palea	3.3	0.08
Nitzschia paleacea	13.3	0.32
Nitzschia sp.	82.9	1.99
Nitzschia sp. #1	13.3	0.32
Nitzschia sp. #2	3.3	0.08
Ochromonas sp.	82.9	1.99
Pediastrum boryanum	152.5	3.67
Pennate diatom (undetermined)	9.9	0.24
Peridinium sp.	3.3	0.08
Rhizosolenia eriensis	3.3	0.08
Rhizosolenia gracilis	3.3	0.08
Scenedesmus acuminatus	6.6	0.16
Scenedesmus bicellularis	6.6	0.16
Scenedesmus bijuga	19.9	0.48
Scenedesmus quadricauda v. longispina	39.8	0.96
Scenedesmus quadricauda	26.5	0.64
Scenedesmus sp.	69.6	1.67
Scenedesmus spinosus	26.5	0.64
Schizothrix calcicola	6.6	0.16
Stephanodiscus alpinus	3.3	0.08
Stephanodiscus minutus	13.3	0.32
Stephanodiscus sp.	39.8	0.96
Stephanodiscus subtilis	49.7	1.20
Stephanodiscus tenuis	3.3	0.08
Synedra delicatissima v. angustissima	3.3	0.08
Synedra filiformis	66.3	1.59
Tabellaria fenestrata v. intermedia	36.5	0.88
Tetraedron caudatum	3.3	0.08
Total	4161.7	100.0

Major survey of October 1976, continued.

14 OCT 76 DC-2

Number of forms = 70
Temperature(C) = ---

Diversity = 4.17
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	3.3	0.09
Achnanthes sp.	3.3	0.09
Amphipleura pellucida	6.6	0.18
Amphora sp.	6.6	0.18
Anacystis incerta	1001.5	27.83
Anacystis thermalis	66.3	1.84
Ankistrodesmus sp. #3	6.6	0.18
Asterionella formosa	29.8	0.83
Centric diatom, unknown	79.6	2.21
Chrysophycean flagellate spp.	49.7	1.38
Cryptomonas sp.	43.1	1.20
Cyclotella auxospore	3.3	0.09
Cyclotella comensis	169.1	4.70
Cyclotella kuetzingiana	6.6	0.18
Cyclotella meneghiniana v. plana	6.6	0.18
Cyclotella meneghiniana	6.6	0.18
Cyclotella michiganiana	29.8	0.83
Cyclotella ocellata	3.3	0.09
Cyclotella sp.	92.9	2.58
Cyclotella stelligera	33.2	0.92
Dinoflagellates	9.9	0.28
Flagellates	713.0	19.82
Fragilaria capucina	19.9	0.55
Fragilaria crotonensis	79.6	2.21
Fragilaria intermedia	6.6	0.18
Fragilaria intermedia v. fallax	16.6	0.46
Fragilaria pinnata	3.3	0.09
Gloeocystis planctonica	76.3	2.12
Gloeocystis sp.	162.5	4.52
Green coccoid, unknown	33.2	0.92
Kirchneriella contorta	19.9	0.55
Melosira granulata	76.3	2.12
Melosira islandica	3.3	0.09
Melosira italica	9.9	0.28
Melosira sp.	6.6	0.18
Navicula capitata	3.3	0.09
Navicula cryptocephala	3.3	0.09
Navicula platystoma v. pantocsekii	3.3	0.09
Navicula sp.	6.6	0.18
Nitzschia acicularis	16.6	0.46
Nitzschia fonticola	16.6	0.46
Nitzschia paleacea	9.9	0.28
Nitzschia sp.	36.5	1.01
Nitzschia sp. #1	9.9	0.28
Ochromonas sp.	149.2	4.15
Oscillatoria limnetica	3.3	0.09
Pediastrum simplex v. duodenarium	49.7	1.38
Pennate diatom (undetermined)	6.6	0.18
Rhizosolenia eriensis	6.6	0.18
Rhizosolenia gracilis	6.6	0.18
Rhoicosphenia curvata	3.3	0.09
Scenedesmus acuminatus	26.5	0.74
Scenedesmus acuminatus v. elongatus	26.5	0.74
Scenedesmus bicellularis	6.6	0.18
Scenedesmus quadricauda v. longispina	13.3	0.37
Scenedesmus quadricauda	39.8	1.11
Scenedesmus sp.	19.9	0.55
Stephanodiscus alpinus	3.3	0.09
Stephanodiscus minutus	29.8	0.83
Stephanodiscus sp.	56.4	1.57
Stephanodiscus subtilis	49.7	1.38
Stephanodiscus tenuis	9.9	0.28
Surirella angusta	3.3	0.09
Synedra delicatissima v. angustissima	3.3	0.09
Synedra filiformis	46.4	1.29
Synedra sp.	3.3	0.09
Synedra ulna	3.3	0.09
Tabellaria fenestrata v. intermedia	33.2	0.92
Tetraedron caudatum	3.3	0.09
Tetraedron minimum	3.3	0.09
Total	3598.0	100.0

14 OCT 76 DC-3

Number of forms = 88
Temperature(C) = ---

Diversity = 4.62
Counted by: S.W.

Taxon	Cells/ml	Percent
Actinastrum hantzschii	11.6	0.35
Amphipleura pellucida	1.7	0.05
Amphora ovalis	1.7	0.05
Amphora ovalis v. pediculus	3.3	0.10
Amphora sp.	5.0	0.15
Anabaena flos-aquae	31.5	0.94
Anacystis incerta	291.8	8.72
Anacystis thermalis	129.3	3.86
Ankistrodesmus sp. #3	9.9	0.30
Asterionella formosa	68.0	2.03
Centric diatom, unknown	117.7	3.52
Chromulina #1	5.0	0.15
Chrysophycean flagellate spp.	9.9	0.30
Coelastrum sp.	46.4	1.39
Crucigenia quadrata	46.4	1.39
Cryptomonas sp.	34.8	1.04
Cyclotella auxospore	1.7	0.05
Cyclotella comensis	122.7	3.67
Cyclotella kuetzingiana auxospore	5.0	0.15
Cyclotella kuetzingiana	14.9	0.45
Cyclotella meneghiniana v. plana	1.7	0.05
Cyclotella meneghiniana	8.3	0.25
Cyclotella michiganiana	39.8	1.19
Cyclotella sp.	189.0	5.65
Cyclotella stelligera	6.6	0.20
Cyclotella temperei	1.7	0.05
Diatoma tenue v. elongatum	1.7	0.05
Dinobryon divergens	1.7	0.05
Dinoflagellates	16.6	0.50
Flagellates	855.6	25.56
Fragilaria brevistriata	31.5	0.94
Fragilaria capucina v. lanceolata	3.3	0.10
Fragilaria capucina	3.3	0.10
Fragilaria construens	8.3	0.25
Fragilaria construens v. venter	1.7	0.05
Fragilaria crotonensis	212.2	6.34
Fragilaria intermedia	9.9	0.30
Fragilaria intermedia v. fallax	38.1	1.14
Fragilaria pinnata	5.0	0.15
Gloeocystis planctonica	49.7	1.49
Gloeocystis sp.	101.1	3.02
Golenkinia radiata	1.7	0.05
Gomphonema sp.	1.7	0.05
Gomphosphaeria lacustris	124.4	3.71
Green coccoid, unknown	8.3	0.25
Kirchneriella contorta	16.6	0.50
Melosira granulata	58.0	1.73
Melosira islandica	9.9	0.30
Melosira italica	19.9	0.59
Mougeotia sp.	8.3	0.25
Navicula cryptocephala	1.7	0.05
Navicula micropupula	1.7	0.05
Nitzschia acicularis	5.0	0.15
Nitzschia fonticola	13.3	0.40
Nitzschia frustulum	1.7	0.05
Nitzschia palea	1.7	0.05
Nitzschia paleacea	5.0	0.15
Nitzschia sp.	28.2	0.84
Nitzschia sp. #1	13.3	0.40
Nitzschia sp. #2	3.3	0.10
Nitzschia tarda	1.7	0.05
Ochromonas sp.	124.4	3.71
Pennate diatom (undetermined)	5.0	0.15
Rhizosolenia eriensis	3.3	0.10
Rhizosolenia gracilis	5.0	0.15
Scenedesmus acuminatus	3.3	0.10
Scenedesmus bicellularis	16.6	0.50
Scenedesmus quadricauda v. longispina	33.2	0.99
Scenedesmus quadricauda v. longispina f.	6.6	0.20
Scenedesmus quadricauda	28.2	0.84
Scenedesmus sp.	24.9	0.74
Scenedesmus spinosus	6.6	0.20
Scenedesmus tetradesmiformis	6.6	0.20
Sphaerocystis sp.	44.8	1.34
Stephanodiscus alpinus	11.6	0.35
Stephanodiscus minutus	13.3	0.40
Stephanodiscus sp.	63.0	1.88
Stephanodiscus subtilis	11.6	0.35
Stephanodiscus tenuis	5.0	0.15
Surirella angusta	1.7	0.05
Surirella sp.	1.7	0.05
Synedra delicatissima v. angustissima	1.7	0.05
Synedra demerarae	1.7	0.05
Synedra filiformis	24.9	0.74
Synedra sp.	1.7	0.05
Tabellaria fenestrata	1.7	0.05
Tabellaria fenestrata v. intermedia	26.5	0.79
Tetraedron minimum	3.3	0.10
Total	3347.6	100.0

14 OCT 76 DC-4

Number of forms = 42
Temperature(C) = ---

Diversity = 3.82
Counted by: S.K.

Taxon	Cells/ml	Percent
Amphipleura pellucida	9.9	0.42
Asterionella formosa	96.2	4.06
Centric diatom, unknown	149.2	6.30
Chrysophycean flagellate spp.	132.6	5.60
Crucigenia quadrata	39.8	1.68
Cryptomonas sp.	19.9	0.84
Cyclotella comensis	136.0	5.74
Cyclotella kuetzingiana	23.2	0.98
Cyclotella meneghiniana v. plana	3.3	0.14
Cyclotella meneghiniana	3.3	0.14
Cyclotella michiganiana	215.5	9.10
Dinobryon divergens	6.6	0.28
Dinoflagellates	6.6	0.28
Flagellates	709.7	29.97
Fragilaria capucina	6.6	0.28
Fragilaria crotonensis	232.1	9.80
Fragilaria intermedia	6.6	0.28
Gloeocystis planctonica	155.9	6.58
Gloeocystis sp.	46.4	1.96
Melosira granulata	33.2	1.40
Melosira islandica	6.6	0.28
Melosira italica	3.3	0.14
Nitzschia #6	3.3	0.14
Nitzschia acicularis	6.6	0.28
Nitzschia bacata	9.9	0.42
Nitzschia confinis	3.3	0.14
Nitzschia fonticola	6.6	0.28
Nitzschia frustulum	3.3	0.14
Nitzschia paleacea	6.6	0.28
Nitzschia spiculoides	6.6	0.28
Nitzschia sp.	9.9	0.42
Nitzschia sp. #1	9.9	0.42
Ochromonas sp.	59.7	2.52
Rhizosolenia eriensis	6.6	0.28
Rhizosolenia gracilis	3.3	0.14
Scenedesmus quadricauda	6.6	0.28
Stephanodiscus minutus	29.8	1.26
Stephanodiscus subtilis	36.5	1.54
Stephanodiscus tenuis	6.6	0.28
Synedra filiformis	26.5	1.12
Tabellaria fenestrata v. intermedia	79.6	3.36
Tetraedron sp.	3.3	0.14
Total	2367.7	100.0

14 OCT 76 DC-5

Number of forms = 34
Temperature(C) = ---

Diversity = 3.59
Counted by: S.K.

Taxon	Cells/ml	Percent
Amphipleura pellucida	6.6	0.28
Anacystis thermalis	92.9	3.86
Asterionella formosa	29.8	1.24
Centric diatom, unknown	136.0	5.66
Chrysophycean flagellate spp.	159.2	6.62
Crucigenia quadrata	26.5	1.10
Cryptomonas sp.	33.2	1.38
Cyclotella auxospore	3.3	0.14
Cyclotella comensis	245.4	10.21
Cyclotella comta	3.3	0.14
Cyclotella kuetzingiana	26.5	1.10
Cyclotella michiganiana	291.8	12.14
Dinoflagellates	3.3	0.14
Flagellates	762.7	31.72
Fragilaria crotonensis	199.0	8.28
Fragilaria intermedia	16.6	0.69
Gloeocystis planctonica	16.6	0.69
Gloeocystis sp.	46.4	1.93
Melosira granulata	19.9	0.83
Nitzschia acicularis	13.3	0.55
Nitzschia angustata v. acuta	3.3	0.14
Nitzschia confinis	9.9	0.41
Nitzschia kuetzingiana	13.3	0.55
Nitzschia paleacea	6.6	0.28
Nitzschia sp.	13.3	0.55
Nitzschia sp. #1	3.3	0.14
Nitzschia sp. #2	3.3	0.14
Ochromonas sp.	59.7	2.48
Scenedesmus quadricauda v. longispina	26.5	1.10
Stephanodiscus minutus	23.2	0.97
Stephanodiscus subtilis	69.6	2.90
Stephanodiscus tenuis	3.3	0.14
Synedra filiformis	9.9	0.41
Tabellaria fenestrata v. intermedia	26.5	1.10
Total	2404.2	100.0

13 OCT 76 NDC .5-0

Number of forms = 68
Temperature(C) = ---

Diversity = 4.73
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphipleura pellucida	5.0	0.35
Amphora ovalis v. pediculus	1.7	0.12
Amphora sp.	6.6	0.47
Anabaena flos-aquae	5.0	0.35
Anacystis thermalis	46.4	3.26
Ankistrodesmus sp. #3	5.0	0.35
Asterionella formosa	63.0	4.42
Caloneis bacillum	1.7	0.12
Caloneis sp.	3.3	0.23
Centric diatom, unknown	56.4	3.95
Chromulina #1	1.7	0.12
Chrysophycean flagellate spp.	9.9	0.70
Coelastrum sp.	11.6	0.81
Crucigenia quadrata	59.7	4.19
Cryptomonas sp.	5.0	0.35
Cyclotella comensis	56.4	3.95
Cyclotella kuetzingiana	13.3	0.93
Cyclotella meneghiniana	3.3	0.23
Cyclotella michiganiana	18.2	1.28
Cyclotella sp.	109.4	7.67
Cyclotella stelligera	1.7	0.12
Dinoflagellates	3.3	0.23
Flagellates	159.2	11.16
Fragilaria crotonensis	81.2	5.70
Fragilaria intermedia	13.3	0.93
Fragilaria pinnata	6.6	0.47
Gloeocystis planctonica	89.5	6.28
Gloeocystis sp.	73.0	5.12
Gomphosphaeria lacustris	199.0	13.95
Green cells, undetermined	3.3	0.23
Melosira granulata	44.8	3.14
Mougeotia sp.	1.7	0.12
Navicula capitata	3.3	0.23
Navicula capitata v. luneburgensis	1.7	0.12
Navicula decussis	3.3	0.23
Navicula latens	1.7	0.12
Navicula sp.	3.3	0.23
Navicula tripunctata	1.7	0.12
Nitzschia acicularis	8.3	0.58
Nitzschia capitellata	1.7	0.12
Nitzschia dissipata	5.0	0.35
Nitzschia fonticola	9.9	0.70
Nitzschia kuetzingiana	1.7	0.12
Nitzschia palea	3.3	0.23
Nitzschia paleacea	9.9	0.70
Nitzschia sp.	28.2	1.98
Nitzschia sp. #1	3.3	0.23
Ochromonas sp.	26.5	1.86
Oocystis sp.	6.6	0.47
Pediastrum boryanum	11.6	0.81
Pennate diatom (undetermined)	1.7	0.12
Rhizosolenia gracilis	1.7	0.12
Rhoicosphenia curvata	1.7	0.12
Scenedesmus bicellularis	9.9	0.70
Scenedesmus quadricauda v. longispina f.	3.3	0.23
Scenedesmus quadricauda	3.3	0.23
Scenedesmus sp.	43.1	3.02
Scenedesmus spinosus	16.6	1.16
Stephanodiscus hantzschii	1.7	0.12
Stephanodiscus minutus	5.0	0.35
Stephanodiscus sp.	18.2	1.28
Stephanodiscus subtilis	6.6	0.47
Stephanodiscus tenuis	3.3	0.23
Surirella angusta	1.7	0.12
Synedra filiformis	11.6	0.81
Tabellaria fenestrata v. intermedia	3.3	0.23
Tetraedron caudatum	1.7	0.12
Tetraedron minimum	1.7	0.12
Total	1425.9	100.0

Major survey of October 1976, continued.

14 OCT 76 NDC .5-1

Number of forms = 67
Temperature(C) = ---

Diversity = 4.89
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphipleura pellucida	3.3	0.12
Amphora ovalis	6.6	0.24
Amphora ovalis v. pediculus	6.6	0.24
Amphora sp.	9.9	0.36
Anabaena flos-aquae	6.6	0.24
Anacystis incerta	149.2	5.36
Anacystis thermalis	79.6	2.86
Ankistrodesmus gelifactum	13.3	0.48
Asterionella formosa	33.2	1.19
Centric diatom, unknown	199.0	7.15
Chromulina #1	16.6	0.60
Chrysophycean flagellate spp.	63.0	2.26
Crucigenia quadrata	6.6	0.24
Cryptomonas sp.	23.2	0.83
Cyclotella auxospore	3.3	0.12
Cyclotella comensis	16.6	0.60
Cyclotella kuetzingiana	3.3	0.12
Cyclotella meneghiniana	46.4	1.67
Cyclotella sp.	132.6	4.77
Cymatopleura solea	3.3	0.12
Cymbella minuta	3.3	0.12
Diatoma tenue v. elongatum	3.3	0.12
Diatoma vulgare	3.3	0.12
Dinoflagellates	16.6	0.60
Flagellates	331.6	11.92
Fragilaria crotonensis	129.3	4.65
Fragilaria intermedia	13.3	0.48
Fragilaria intermedia v. fallax	9.9	0.36
Gloeocystis planctonica	215.5	7.75
Gloeocystis sp.	165.8	5.96
Green coccoid, unknown	16.6	0.60
Kirchneriella contorta	19.9	0.72
Melosira granulata	255.3	9.18
Melosira italica	6.6	0.24
Mougeotia sp.	33.2	1.19
Navicula decussis	3.3	0.12
Navicula latens	3.3	0.12
Navicula micropupula	3.3	0.12
Navicula sp.	23.2	0.83
Nitzschia acicularis	39.8	1.43
Nitzschia capitellata	3.3	0.12
Nitzschia fonticola	19.9	0.72
Nitzschia paleacea	9.9	0.36
Nitzschia sp.	69.6	2.50
Nitzschia sp. #1	33.2	1.19
Ochromonas sp.	66.3	2.38
Pennate diatom (undetermined)	13.3	0.48
Rhizosolenia eriensis	3.3	0.12
Rhizosolenia gracilis	6.6	0.24
Scenedesmus acuminatus	13.3	0.48
Scenedesmus acuminatus v. elongatus	6.6	0.24
Scenedesmus bicellularis	6.6	0.24
Scenedesmus dimorphus	13.3	0.48
Scenedesmus quadricauda v. longispina	39.8	1.43
Scenedesmus quadricauda v. longispina f.	6.6	0.24
Scenedesmus quadricauda	26.5	0.95
Scenedesmus sp.	106.1	3.81
Scenedesmus spinosus	13.3	0.48
Schizothrix calcicola	23.2	0.83
Stephanodiscus minutus	6.6	0.24
Stephanodiscus niagarae	3.3	0.12
Stephanodiscus sp.	56.4	2.03
Stephanodiscus subtilis	6.6	0.24
Stephanodiscus tenuis	13.3	0.48
Synedra delicatissima v. angustissima	3.3	0.12
Synedra filiformis	69.6	2.50
Tabellaria fenestrata v. intermedia	23.2	0.83
Total	2782.2	100.0

14 OCT 76 NDC .5-2

Number of forms = 88
Temperature(C) = ---

Diversity = 4.89
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	1.7	0.05
Amphipleura pellucida	1.7	0.05
Amphora ovalis v. pediculus	1.7	0.05
Amphora sp.	18.2	0.51
Anabaena flos-aquae	6.6	0.19
Anacystis incerta	91.2	2.55
Anacystis thermalis	53.1	1.49
Ankistrodesmus falcatus	6.6	0.19
Ankistrodesmus sp.	3.3	0.09
Ankistrodesmus sp. #3	5.0	0.14
Asterionella formosa	81.2	2.28
Blue-green unknown filament	1.7	0.05
Centric diatom, unknown	92.9	2.60
Chromulina #1	11.6	0.33
Chromulina parvula	19.9	0.56
Chrysophycean flagellate spp.	43.1	1.21
Crucigenia quadrata	11.6	0.33
Crucigenia tetrapedia	6.6	0.19
Cryptomonas sp.	29.8	0.84
Cyclotella auxospore	5.0	0.14
Cyclotella comensis	112.7	3.16
Cyclotella kuetzingiana	14.9	0.42
Cyclotella meneghiniana	14.9	0.42
Cyclotella michiganiana	14.9	0.42
Cyclotella sp.	131.0	3.67
Dinobryon divergens	1.7	0.05
Dinoflagellates	13.3	0.37
Flagellate a	3.3	0.09
Flagellates	449.3	12.59
Fragilaria crotonensis	179.1	5.02
Fragilaria intermedia	5.0	0.14
Fragilaria intermedia v. fallax	33.2	0.93
Fragilaria pinnata	9.9	0.28
Fragilaria pinnata v. lancettula	5.0	0.14
Gloeocystis planctonica	235.4	6.60
Gloeocystis sp.	213.9	5.99
Golenkinia sp.	1.7	0.05
Gomphonema olivaceum	1.7	0.05
Gomphosphaeria lacustris	547.2	15.33
Green coccoid, unknown	16.6	0.46
Kirchneriella contorta	29.8	0.84
Kirchneriella sp.	21.6	0.60
Melosira granulata	145.9	4.09
Melosira italica	8.3	0.23
Melosira sp.	1.7	0.05
Mougeotia sp.	49.7	1.39
Navicula decussis	1.7	0.05
Navicula latens	1.7	0.05
Navicula platystoma v. pantocsekii	1.7	0.05
Navicula sp.	14.9	0.42
Nitzschia acicularis	9.9	0.28
Nitzschia bacata	1.7	0.05
Nitzschia confinis	3.3	0.09
Nitzschia dissipata	1.7	0.05
Nitzschia fonticola	14.9	0.42
Nitzschia paleacea	9.9	0.28
Nitzschia sp.	48.1	1.35
Nitzschia sp. #1	11.6	0.33
Nitzschia sp. #2	5.0	0.14
Nitzschia sublinearis	1.7	0.05
Ochromonas sp.	119.4	3.34
Oscillatoria sp.	1.7	0.05
Pediastrum duplex v reticulatum	26.5	0.74
Pediastrum tetras v. tetraodon	13.3	0.37
Pennate diatom (undetermined)	6.6	0.19
Rhizosolenia gracilis	1.7	0.05
Scenedesmus acuminatus	63.0	1.76
Scenedesmus acuminatus v. elongatus	18.2	0.51
Scenedesmus bicellularis	16.6	0.46
Scenedesmus quadricauda v. longispina	54.7	1.53
Scenedesmus quadricauda	39.8	1.11
Scenedesmus sp.	114.4	3.20
Scenedesmus spinosus	19.9	0.56
Schizothrix calcicola	21.6	0.60
Stephanodiscus alpinus	5.0	0.14
Stephanodiscus minutus	1.7	0.05
Stephanodiscus sp.	44.8	1.25
Stephanodiscus subtilis	8.3	0.23
Stephanodiscus tenuis	14.9	0.42
Surirella angusta	3.3	0.09
Surirella sp.	1.7	0.05
Synedra delicatissima v. angustissima	1.7	0.05
Synedra filiformis	53.1	1.49
Synedra sp.	1.7	0.05
Tabellaria fenestrata v. intermedia	29.8	0.84
Tetraedron caudatum	1.7	0.05
Tetraedron sp.	1.7	0.05
Treubaria setigerum	1.7	0.05
Total	3569.8	100.0

13 OCT 76 NDC 1-0

Number of forms = 70
Temperature(C) = ---

Diversity = 4.87
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes pinnata	9.9	0.33
Amphipleura pellucida	16.6	0.54
Amphora ovalis	6.6	0.22
Amphora ovalis v. libyca	3.3	0.11
Anacystis incerta	159.2	5.22
Anacystis thermalis	53.1	1.74
Asterionella formosa	132.6	4.35
Caloneis sp.	6.6	0.22
Centric diatom, unknown	189.0	6.20
Chrysophycean flagellate spp.	126.0	4.13
Crucigenia quadrata	53.1	1.74
Cryptomonas sp.	36.5	1.20
Cyclotella comensis	169.1	5.55
Cyclotella kuetzingiana auxospore	6.6	0.22
Cyclotella kuetzingiana	23.2	0.76
Cyclotella meneghiniana	6.6	0.22
Cyclotella michiganiana	116.1	3.81
Cyclotella stelligera	3.3	0.11
Cymbella minuta	3.3	0.11
Dinoflagellates	36.5	1.20
Flagellates	417.8	13.71
Fragilaria capucina	49.7	1.63
Fragilaria construens	3.3	0.11
Fragilaria crotonensis	291.8	9.58
Fragilaria intermedia	16.6	0.54
Fragilaria pinnata	23.2	0.76
Gloeocystis planctonica	119.4	3.92
Gloeocystis sp.	119.4	3.92
Golenkinia sp.	3.3	0.11
Gomphonema sp.	3.3	0.11
Green coccoid, unknown	3.3	0.11
Kirchneriella sp.	13.3	0.44
Melosira granulata	76.3	2.50
Melosira italica	9.9	0.33
Navicula #78	3.3	0.11
Navicula capitata	3.3	0.11
Navicula capitata v. luneburgensis	6.6	0.22
Navicula costulata	3.3	0.11
Navicula decussis	3.3	0.11
Navicula latens	3.3	0.11
Neidium sp.	3.3	0.11
Nitzschia acicularis	6.6	0.22
Nitzschia bacata	9.9	0.33
Nitzschia capitellata	3.3	0.11
Nitzschia dissipata	6.6	0.22
Nitzschia fonticola	9.9	0.33
Nitzschia kuetzingiana	13.3	0.44
Nitzschia paleacea	9.9	0.33
Nitzschia sp.	13.3	0.44
Nitzschia sp. #1	3.3	0.11
Nitzschia sp. #2	3.3	0.11
Nitzschia sublinearis	6.6	0.22
Ochromonas sp.	23.2	0.76
Pediastrum duplex v. gracillimum	112.7	3.70
Pennate diatom (undetermined)	26.5	0.87
Peridinium sp.	3.3	0.11
Pinnularia sp.	3.3	0.11
Scenedesmus acuminatus	26.5	0.87
Scenedesmus quadricauda v. longispina	26.5	0.87
Scenedesmus quadricauda	13.3	0.44
Scenedesmus sp.	39.8	1.31
Scenedesmus spinosus	6.6	0.22
Stephanodiscus binderanus	56.4	1.85
Stephanodiscus minutus	29.8	0.98
Stephanodiscus sp.	3.3	0.11
Stephanodiscus subtilis	39.8	1.31
Stephanodiscus tenuis	19.9	0.65
Synedra filiformis	33.2	1.09
Tabellaria fenestrata v. intermedia	159.2	5.22
Tetraedron caudatum	3.3	0.11
Total	3047.5	100.0

14 OCT 76 NDC 1-1

Number of forms = 80
Temperature(C) = ---

Diversity = 4.92
Counted by: S.W.

Taxon	Cells/ml	Percent
Acanthochloris sp.	9.9	0.31
Achnanthes sp.	3.3	0.10
Amphipleura pellucida	6.6	0.21
Amphora ovalis	3.3	0.10
Amphora ovalis v. pediculus	6.6	0.21
Amphora sp.	9.9	0.31
Anabaena flos-aquae	56.4	1.76
Ankistrodesmus sp.	13.3	0.41
Asterionella formosa	99.5	3.10
Caloneis ventricosa v. minuta	3.3	0.10
Centric diatom, unknown	129.3	4.03
Chromulina #1	9.9	0.31
Chromulina parvula	26.5	0.83
Chrysophycean flagellate spp.	29.8	0.93
Cryptomonas sp.	39.8	1.24
Cyclotella auxospore	9.9	0.31
Cyclotella comensis	59.7	1.86
Cyclotella kuetzingiana	3.3	0.10
Cyclotella meneghiniana v. plana	6.6	0.21
Cyclotella meneghiniana	19.9	0.62
Cyclotella michiganiana	23.2	0.72
Cyclotella ocellata	3.3	0.10
Cyclotella sp.	99.5	3.10
Cyclotella stelligera	3.3	0.10
Diatoma sp.	3.3	0.10
Dinobryon divergens	3.3	0.10
Dinoflagellates	23.2	0.72
Flagellates	447.7	13.95
Fragilaria construens v. binodis	6.6	0.21
Fragilaria crotonensis	73.0	2.27
Fragilaria intermedia	6.6	0.21
Gloeocystis planctonica	225.5	7.02
Gloeocystis sp.	334.9	10.43
Golenkinia sp.	3.3	0.10
Green coccoid, unknown	59.7	1.86
Kirchneriella contorta	19.9	0.62
Kirchneriella sp.	6.6	0.21
Melosira granulata	354.8	11.05
Melosira sp.	3.3	0.10
Mougeotia sp.	73.0	2.27
Navicula capitata	9.9	0.31
Navicula cryptocephala	3.3	0.10
Navicula decussis	3.3	0.10
Navicula gastrum	3.3	0.10
Navicula menisculus v. upsaliensis	3.3	0.10
Navicula radiosa v. tenella	3.3	0.10
Navicula sp.	6.6	0.21
Nitzschia acicularis	13.3	0.41
Nitzschia dissipata	3.3	0.10
Nitzschia fonticola	19.9	0.62
Nitzschia paleacea	16.6	0.52
Nitzschia sp.	43.1	1.34
Nitzschia sp. #1	26.5	0.83
Nitzschia sublinearis	3.3	0.10
Ochromonas sp.	79.6	2.48
Oscillatoria sp.	9.9	0.31
Pennate diatom (undetermined)	23.2	0.72
Peridinium sp.	3.3	0.10
Rhizosolenia eriensis	3.3	0.10
Rhizosolenia gracilis	6.6	0.21
Rhoicosphenia curvata	3.3	0.10
Scenedesmus acuminatus	26.5	0.83
Scenedesmus bicellularis	26.5	0.83
Scenedesmus quadricauda v. longispina	53.1	1.65
Scenedesmus quadricauda	73.0	2.27
Scenedesmus sp.	109.4	3.41
Scenedesmus spinosus	13.3	0.41
Schizothrix calcicola	53.1	1.65
Stephanodiscus alpinus	3.3	0.10
Stephanodiscus minutus	16.6	0.52
Stephanodiscus sp.	73.0	2.27
Stephanodiscus subtilis	16.6	0.52
Stephanodiscus tenuis	23.2	0.72
Synedra delicatissima v. angustissima	3.3	0.10
Synedra filiformis	73.0	2.27
Synedra sp.	3.3	0.10
Synedra ulna v. chaseana	3.3	0.10
Tabellaria fenestrata v. intermedia	19.9	0.62
Tetraedron caudatum	6.6	0.21
Tetraedron minimum	3.3	0.10
Total	3210.0	100.0

Major survey of October 1976, continued.

14 OCT 76 NDC 1-2

Number of forms = 67
Temperature(C) = ---

Diversity = 4.83
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	3.3	0.20
Amphipleura pellucida	3.3	0.20
Amphora ovalis v. gracilis	3.3	0.20
Amphora rotunda	1.7	0.10
Amphora sp.	1.7	0.10
Anacystis thermalis	46.4	2.83
Asterionella formosa	119.4	7.27
Centric diatom, unknown	107.8	6.56
Chromulina parvula	1.7	0.10
Chrysophycean flagellate spp.	61.3	3.73
Cryptomonas sp.	34.8	2.12
Cyclotella comensis	91.2	5.55
Cyclotella kuetzingiana	9.9	0.61
Cyclotella meneghiniana	18.2	1.11
Cyclotella michiganiana	91.2	5.55
Cyclotella stelligera	5.0	0.30
Cymatopleura solea	1.7	0.10
Diatoma tenue v. elongatum	3.3	0.20
Diatoma vulgare	1.7	0.10
Dinoflagellates	19.9	1.21
Flagellates	180.7	11.00
Fragilaria construens	1.7	0.10
Fragilaria crotonensis	117.7	7.16
Fragilaria intermedia	28.2	1.72
Fragilaria pinnata	14.9	0.91
Fragilaria sp.	1.7	0.10
Gloeocystis planctonica	68.0	4.14
Gloeocystis sp.	68.0	4.14
Melosira granulata	119.4	7.27
Mougeotia sp.	26.5	1.61
Navicula anglica v. subsalsa	1.7	0.10
Navicula capitata v. luneburgensis	1.7	0.10
Navicula cryptocephaloides	1.7	0.10
Navicula decussis	1.7	0.10
Navicula menisculus v. upsaliensis	1.7	0.10
Navicula pupula	3.3	0.20
Navicula sp.	8.3	0.50
Navicula tripunctata	3.3	0.20
Navicula tripunctata v. cuneata	1.7	0.10
Nitzschia acicularis	6.6	0.40
Nitzschia bacata	3.3	0.20
Nitzschia confinis	3.3	0.20
Nitzschia fonticola	5.0	0.30
Nitzschia kuetzingiana	5.0	0.30
Nitzschia paleacea	5.0	0.30
Nitzschia spiculoides	5.0	0.30
Nitzschia sp.	3.3	0.20
Nitzschia sp. #1	9.9	0.61
Nitzschia sp. #2	1.7	0.10
Ochromonas sp.	29.8	1.82
Pennate diatom (undetermined)	1.7	0.10
Rhizosolenia eriensis	1.7	0.10
Scenedesmus acuminatus	13.3	0.81
Scenedesmus acuminatus v. elongatus	6.6	0.40
Scenedesmus bicellularis	3.3	0.20
Scenedesmus quadricauda v. longispina	19.9	1.21
Scenedesmus quadricauda	19.9	1.21
Scenedesmus sp.	21.6	1.31
Stephanodiscus minutus	54.7	3.33
Stephanodiscus sp.	1.7	0.10
Stephanodiscus subtilis	13.3	0.81
Stephanodiscus tenuis	23.2	1.41
Surirella angusta	1.7	0.10
Synedra delicatissima v. angustissima	1.7	0.10
Synedra filiformis	36.5	2.22
Tabellaria fenestrata v. intermedia	64.7	3.94
Tetraedron caudatum	1.7	0.10
Total	1643.1	100.0

13 OCT 76 NDC 2-0

Number of forms = 59
Temperature(C) = ---

Diversity = 4.59
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	3.3	0.16
Amphora neglecta	3.3	0.16
Amphora sp.	9.9	0.49
Anabaena flos-aquae	9.9	0.49
Ankistrodesmus sp. #3	3.3	0.16
Asterionella formosa	96.2	4.69
Centric diatom, unknown	56.4	2.75
Chrysophycean flagellate spp.	3.3	0.16
Coelastrum sp.	36.5	1.78
Cryptomonas sp.	9.9	0.49
Cyclotella comensis	82.9	4.05
Cyclotella kuetzingiana	3.3	0.16
Cyclotella meneghiniana v. plana	9.9	0.49
Cyclotella michiganiana	3.3	0.16
Cyclotella sp.	112.7	5.50
Cyclotella stelligera	3.3	0.16
Dinobryon flagellates	3.3	0.16
Dinoflagellates	3.3	0.16
Flagellates	228.8	11.17
Fragilaria capucina	13.3	0.65
Fragilaria construens	6.6	0.32
Fragilaria construens v. pumila	76.3	3.72
Fragilaria crotonensis	245.4	11.97
Fragilaria intermedia v. fallax	9.9	0.49
Fragilaria sp.	13.3	0.65
Gloeocystis planctonica	56.4	2.75
Gloeocystis sp.	245.4	11.97
Green cells, undetermined	26.5	1.29
Melosira granulata	109.4	5.34
Mougeotia sp.	9.9	0.49
Navicula latens	3.3	0.16
Navicula menisculus v. upsaliensis	3.3	0.16
Navicula radiosa v. tenella	6.6	0.32
Navicula sp.	6.6	0.32
Nitzschia acicularis	6.6	0.32
Nitzschia confinis	9.9	0.49
Nitzschia dissipata	3.3	0.16
Nitzschia kuetzingiana	6.6	0.32
Nitzschia paleacea	3.3	0.16
Nitzschia sp.	33.2	1.62
Nitzschia sp. #1	6.6	0.32
Nitzschia sublinearis	6.6	0.32
Ochromonas sp.	36.5	1.78
Pediastrum boryanum	189.0	9.22
Pediastrum duplex	26.5	1.29
Pennate diatom (undetermined)	6.6	0.32
Rhizosolenia gracilis	3.3	0.16
Scenedesmus acuminatus	9.9	0.49
Scenedesmus bicellularis	19.9	0.97
Scenedesmus quadricauda v. longispina	23.2	1.13
Scenedesmus sp.	56.4	2.75
Scenedesmus spinosus	9.9	0.49
Schizothrix calcicola	6.6	0.32
Stephanodiscus alpinus	3.3	0.16
Stephanodiscus minutus	6.6	0.32
Stephanodiscus sp.	23.2	1.13
Stephanodiscus subtilis	9.9	0.49
Synedra filiformis	19.9	0.97
Tabellaria fenestrata v. intermedia	6.6	0.32
Total	2049.4	100.0

14 OCT 76 NDC 2-1

Number of forms = 100
Temperature(C) = ---

Diversity = 4.76
Counted by: S.W.

Taxon	Cells/ml	Percent
Acanthochloris sp.	6.6	0.10
Achnanthes clevei v. rostrata	6.6	0.10
Amphipleura pellucida	9.9	0.15
Amphora ovalis	3.3	0.05
Amphora ovalis v. pediculus	13.3	0.20
Amphora sibirica	3.3	0.05
Amphora sp.	46.4	0.70
Anacystis incerta	1442.5	21.79
Anacystis thermalis	39.8	0.60
Ankistrodesmus falcatus	3.3	0.05
Asterionella formosa	129.3	1.95
Caloneis sp.	6.6	0.10
Centric diatom, unknown	222.2	3.36
Chromulina #1	6.6	0.10
Chromulina parvula	3.3	0.05
Chrysophycean flagellate spp.	43.1	0.65
Cocconeis pediculus	3.3	0.05
Coelastrum reticulatum	53.1	0.80
Cosmarium #1	3.3	0.05
Cryptomonas sp.	53.1	0.80
Cyclotella auxospore	6.6	0.10
Cyclotella comensis	139.3	2.10
Cyclotella kuetzingiana	13.3	0.20
Cyclotella meneghiniana v. plana	9.9	0.15
Cyclotella meneghiniana	9.9	0.15
Cyclotella michiganiana	29.8	0.45
Cyclotella sp.	212.2	3.21
Cyclotella stelligera	3.3	0.05
Cyclotella temperei	3.3	0.05
Cymatopleura solea	3.3	0.05
Diatoma tenue v. elongatum	6.6	0.10
Dinobryon flagellates	3.3	0.05
Dinoflagellates	29.8	0.45
Flagellates	633.4	9.57
Fragilaria brevistriata	66.3	1.00
Fragilaria capucina	59.7	0.90
Fragilaria construens	63.0	0.95
Fragilaria crotonensis	550.5	8.32
Fragilaria intermedia	26.5	0.40
Fragilaria intermedia v. fallax	96.2	1.45
Fragilaria pinnata	26.5	0.40
Fragilaria pinnata v. lancettula	3.3	0.05
Fragilaria sp.	9.9	0.15
Gloeocystis planctonica	265.3	4.01
Gloeocystis sp.	470.9	7.11
Golenkinia sp.	9.9	0.15
Green cells, undetermined	29.8	0.45
Green coccoid, unknown	26.5	0.40
Kirchneriella contorta	53.1	0.80
Melosira granulata	288.5	4.36
Melosira islandica	3.3	0.05
Melosira italica	9.9	0.15
Mougeotia sp.	43.1	0.65
Navicula #78	6.6	0.10
Navicula capitata	3.3	0.05
Navicula cryptocephala v. veneta	3.3	0.05
Navicula gregaria	3.3	0.05
Navicula micropupula	3.3	0.05
Navicula placentula	3.3	0.05
Navicula sp.	26.5	0.40
Navicula tripunctata	3.3	0.05
Nitzschia acicularis	49.7	0.75
Nitzschia confinis	9.9	0.15
Nitzschia dissipata	6.6	0.10
Nitzschia fonticola	23.2	0.35
Nitzschia paleacea	19.9	0.30
Nitzschia sp.	76.3	1.15
Nitzschia sp. #1	16.6	0.25
Nitzschia sublinearis	3.3	0.05
Ochromonas sp.	73.0	1.10
Oocystis sp.	13.3	0.20
Opephora martyi	3.3	0.05
Pediastrum simplex	33.2	0.50
Pennate diatom (undetermined)	33.2	0.50
Peridinium sp.	3.3	0.05
Rhizosolenia eriensis	3.3	0.05
Rhizosolenia gracilis	3.3	0.05
Scenedesmus acuminatus	29.8	0.45
Scenedesmus acuminatus v. elongatus	26.5	0.40
Scenedesmus caudato-aculeolatus	13.3	0.20
Scenedesmus denticulatus	13.3	0.20
Scenedesmus denticulatus v. linearis	13.3	0.20
Scenedesmus quadricauda v. longispina	89.5	1.35
Scenedesmus quadricauda	13.3	0.20
Scenedesmus sp.	225.5	3.41
Scenedesmus spinosus	16.6	0.25
Scenedesmus tetradesmiformis v. tetrades	13.3	0.20
Schroederia sp.	3.3	0.05
Staurastrum sp.	3.3	0.05
Stauroneis smithii	3.3	0.05
Stephanodiscus alpinus	29.8	0.45
Stephanodiscus minutus	43.1	0.65
Stephanodiscus sp.	96.2	1.45
Stephanodiscus subtilis	26.5	0.40
Stephanodiscus tenuis	13.3	0.20
Surirella angusta	9.9	0.15
Synedra delicatissima v. angustissima	6.6	0.10
Synedra filiformis	109.4	1.65
Tabellaria fenestrata v. intermedia	86.2	1.30
Tetraedron caudatum	3.3	0.05
Total	6618.8	100.0

14 OCT 76 NDC 2-3

Number of forms = 50
Temperature(C) = ---

Diversity = 4.38
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. robusta	6.6	0.28
Amphipleura pellucida	23.2	0.97
Anacystis incerta	165.8	6.91
Anacystis thermalis	99.5	4.14
Asterionella formosa	96.2	4.01
Centric diatom, unknown	149.2	6.22
Chrysophycean flagellate spp.	92.9	3.87
Cryptomonas sp.	39.8	1.66
Cyclotella comensis	189.0	7.87
Cyclotella kuetzingiana	9.9	0.41
Cyclotella michiganiana	66.3	2.76
Cyclotella stelligera	23.2	0.97
Diatoma tenue v. elongatum	9.9	0.41
Dinobryon divergens	9.9	0.41
Dinoflagellates	43.1	1.80
Flagellates	504.1	20.99
Fragilaria crotonensis	228.8	9.53
Fragilaria intermedia	26.5	1.10
Fragilaria pinnata	3.3	0.14
Gloeocystis planctonica	13.3	0.55
Gloeocystis sp.	43.1	1.80
Melosira granulata	76.3	3.18
Mougeotia sp.	13.3	0.55
Navicula costulata	3.3	0.14
Navicula decussis	3.3	0.14
Navicula pupula	3.3	0.14
Navicula sp.	3.3	0.14
Nitzschia acicularis	9.9	0.41
Nitzschia bacata	6.6	0.28
Nitzschia capitellata	6.6	0.28
Nitzschia confinis	13.3	0.55
Nitzschia fonticola	3.3	0.14
Nitzschia kuetzingiana	3.3	0.14
Nitzschia paleacea	6.6	0.28
Nitzschia sp.	3.3	0.14
Nitzschia sp. #1	19.9	0.83
Ochromonas sp.	82.9	3.45
Oocystis sp.	13.3	0.55
Pediastrum duplex	106.1	4.42
Rhizosolenia eriensis	3.3	0.14
Rhizosolenia gracilis	3.3	0.14
Scenedesmus bijuga	53.1	2.21
Scenedesmus quadricauda v. longispina	13.3	0.55
Stephanodiscus minutus	19.9	0.83
Stephanodiscus subtilis	23.2	0.97
Stephanodiscus tenuis	9.9	0.41
Synedra delicatissima v. angustissima	3.3	0.14
Synedra filiformis	29.8	1.24
Tabellaria fenestrata v. intermedia	16.6	0.69
Tetraedron regulare	3.3	0.14
Total	2400.9	100.0

Major survey of October 1976, continued.

13 OCT 76 NDC 4-0

Number of forms = 82
Temperature(C) = ---

Diversity = 4.91
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphipleura pellucida	1.7	0.09
Amphora ovalis v. pediculus	5.0	0.28
Amphora sp.	8.3	0.47
Amphora veneta v. capitata	1.7	0.09
Anabaena flos-aquae	14.9	0.85
Anacystis thermalis	13.3	0.76
Ankistrodesmus sp. #3	1.7	0.09
Asterionella formosa	74.6	4.27
Centric diatom, unknown	77.9	4.46
Chrysophycean flagellate spp.	14.9	0.85
Closteriopsis longissima	1.7	0.09
Crucigenia tetrapedia	6.6	0.38
Cryptomonas sp.	26.5	1.52
Cyclotella auxospore	3.3	0.19
Cyclotella comensis	51.4	2.94
Cyclotella kuetzingiana	3.3	0.19
Cyclotella meneghiniana v. plana	6.6	0.38
Cyclotella meneghiniana	5.0	0.28
Cyclotella michiganiana	16.6	0.95
Cyclotella sp.	107.8	6.17
Cyclotella stelligera	1.7	0.09
Cymbella sp.	1.7	0.09
Diatoma vulgare	13.3	0.76
Dinoflagellates	5.0	0.28
Flagellates	296.8	17.00
Fragilaria capucina v. lanceolata	6.6	0.38
Fragilaria capucina	6.6	0.38
Fragilaria construens	3.3	0.19
Fragilaria crotonensis	199.0	11.40
Fragilaria intermedia v. fallax	1.7	0.09
Fragilaria pinnata	6.6	0.38
Fragilaria vaucheriae	1.7	0.09
Gloeocystis planctonica	51.4	2.94
Gloeocystis sp.	117.7	6.74
Gomphonema olivaceum	1.7	0.09
Kirchneriella sp.	11.6	0.66
Melosira granulata	69.6	3.99
Mougeotia sp.	14.9	0.85
Navicula #23	1.7	0.09
Navicula #78	1.7	0.09
Navicula bacillum	1.7	0.09
Navicula capitata	3.3	0.19
Navicula capitata v. luneburgensis	3.3	0.19
Navicula costulata	1.7	0.09
Navicula latens	3.3	0.19
Navicula platystoma v. pantocsekii	1.7	0.09
Navicula radiosa v. tenella	1.7	0.09
Navicula sp.	8.3	0.47
Navicula viridula v. rostelata	3.3	0.19
Nitzschia acicularis	24.9	1.42
Nitzschia fonticola	11.6	0.66
Nitzschia paleacea	6.6	0.38
Nitzschia recta	5.0	0.28
Nitzschia sp.	41.5	2.37
Nitzschia sp. #1	11.6	0.66
Nitzschia sublinearis	1.7	0.09
Ochromonas sp.	49.7	2.85
Pennate diatom (undetermined)	13.3	0.76
Peridinium sp.	1.7	0.09
Rhizosolenia eriensis	1.7	0.09
Rhizosolenia gracilis	1.7	0.09
Scenedesmus acuminatus	9.9	0.57
Scenedesmus bicellularis	13.3	0.76
Scenedesmus bijuga	6.6	0.38
Scenedesmus dimorphus	9.9	0.57
Scenedesmus quadricauda v. longispina	23.2	1.33
Scenedesmus quadricauda	9.9	0.57
Scenedesmus sp.	33.2	1.90
Scenedesmus spinosus	6.6	0.38
Schizothrix calcicola	6.6	0.38
Stephanodiscus alpinus	3.3	0.19
Stephanodiscus binderanus	11.6	0.66
Stephanodiscus minutus	5.0	0.28
Stephanodiscus sp.	19.9	1.14
Stephanodiscus subtilis	8.3	0.47
Stephanodiscus tenuis	8.3	0.47
Surirella angusta	3.3	0.19
Synedra delicatissima v. angustissima	14.9	0.85
Synedra filiformis	58.0	3.32
Synedra sp.	3.3	0.19
Tabellaria fenestrata v. intermedia	33.2	1.90
Tetraedron caudatum	1.7	0.09
Total	1745.9	100.0

14 OCT 76 NDC 4-1

Number of forms = 87 Diversity = 4.80
Temperature(C) = --- Counted by: S.W.

Taxon	Cells/ml	Percent
Acanthochloris sp.	1.7	0.06
Achnanthes #1	1.7	0.06
Achnanthes clevei v. rostrata	8.3	0.30
Actinastrum hantzschii v. fluviatile	6.6	0.24
Actinastrum sp.	13.3	0.48
Amphora ovalis v. libyca	1.7	0.06
Amphora ovalis v. pediculus	5.0	0.18
Amphora sp.	11.6	0.42
Anacystis incerta	66.3	2.41
Anacystis thermalis	13.3	0.48
Ankistrodesmus falcatus	6.6	0.24
Ankistrodesmus sp.	9.9	0.36
Ankistrodesmus sp. #3	3.3	0.12
Asterionella formosa	68.0	2.47
Caloneis sp.	1.7	0.06
Centric diatom, unknown	84.6	3.07
Chromulina #1	8.3	0.30
Chromulina parvula	6.6	0.24
Chrysophycean flagellate spp.	13.3	0.48
Cryptomonas sp.	34.8	1.26
Cyclotella comensis	51.4	1.87
Cyclotella kuetzingiana	1.7	0.06
Cyclotella meneghiniana	8.3	0.30
Cyclotella michiganiana auxospore	1.7	0.06
Cyclotella michiganiana	5.0	0.18
Cyclotella sp.	126.0	4.58
Cymbella minuta	1.7	0.06
Diatoma tenue v. elongatum	1.7	0.06
Dinobryon divergens	3.3	0.12
Dinoflagellates	11.6	0.42
Flagellates	469.2	17.04
Fragilaria capucina	3.3	0.12
Fragilaria construens	3.3	0.12
Fragilaria crotonensis	134.3	4.88
Fragilaria intermedia v. fallax	16.6	0.60
Fragilaria pinnata	16.6	0.60
Fragilaria sp.	8.3	0.30
Gloeocystis planctonica	147.6	5.36
Gloeocystis sp.	84.6	3.07
Gomphosphaeria lacustris	414.5	15.05
Green cells, undetermined	1.7	0.06
Green coccoid, unknown	11.6	0.42
Kirchneriella contorta	21.6	0.78
Lagerheimia longiseta	1.7	0.06
Melosira granulata	152.5	5.54
Melosira islandica	1.7	0.06
Melosira italica	1.7	0.06
Mougeotia sp.	44.8	1.63
Navicula capitata	1.7	0.06
Navicula gastrum v. signata	1.7	0.06
Navicula pupula	1.7	0.06
Navicula sp.	9.9	0.36
Nitzschia acicularis	38.1	1.38
Nitzschia dissipata	3.3	0.12
Nitzschia fonticola	11.6	0.42
Nitzschia kuetzingiana	1.7	0.06
Nitzschia paleacea	14.9	0.54
Nitzschia sp.	59.7	2.17
Nitzschia sp. #1	16.6	0.60
Nitzschia tarda	1.7	0.06
Ochromonas sp.	61.3	2.23
Pediastrum duplex v. clathratum	8.3	0.30
Peridinium sp.	3.3	0.12
Rhizosolenia eriensis	1.7	0.06
Rhizosolenia gracilis	3.3	0.12
Scenedesmus acuminatus	23.2	0.84
Scenedesmus acuminatus v. elongatus	6.6	0.24
Scenedesmus bicellularis	13.3	0.48
Scenedesmus dimorphus	6.6	0.24
Scenedesmus quadricauda v. longispina	53.1	1.93
Scenedesmus quadricauda v. longispina f.	6.6	0.24
Scenedesmus quadricauda	23.2	0.84
Scenedesmus sp.	71.3	2.59
Scenedesmus spinosus	13.3	0.48
Scenedesmus tetradesmiformis	6.6	0.24
Schizothrix calcicola	13.3	0.48
Stephanodiscus alpinus	3.3	0.12
Stephanodiscus minutus	5.0	0.18
Stephanodiscus sp.	13.3	0.48
Stephanodiscus subtilis	11.6	0.42
Stephanodiscus tenuis	9.9	0.36
Surirella angusta	1.7	0.06
Synedra delicatissima v. angustissima	9.9	0.36
Synedra filiformis	79.6	2.89
Synedra sp.	8.3	0.30
Tabellaria fenestrata v. intermedia	18.2	0.66
Tetraedron minimum	1.7	0.06
Total	2754.0	100.0

14 OCT 76 NDC 4-3

Number of forms = 57
Temperature(C) = ---

Diversity = 3.85
Counted by. S.W.

Taxon	Cells/ml	Percent
Amphipleura pellucida	6.6	0.35
Anabaena flos-aquae	64.7	3.44
Anacystis incerta	41.5	2.20
Anacystis thermalis	26.5	1.41
Ankistrodesmus sp.	3.3	0.18
Asterionella formosa	21.6	1.15
Centric diatom, unknown	31.5	1.67
Chromulina #1	6.6	0.35
Chrysophycean flagellate spp.	5.0	0.26
Cryptomonas sp.	31.5	1.67
Cyclotella comensis	49.7	2.64
Cyclotella kuetzingiana	3.3	0.18
Cyclotella michiganiana	1.7	0.09
Cyclotella operculata	1.7	0.09
Cyclotella sp.	114.4	6.08
Cyclotella stelligera	1.7	0.09
Cyclotella temperei	1.7	0.09
Dictyosphaerium sp.	132.6	7.05
Flagellates	495.8	26.34
Fragilaria capucina	11.6	0.62
Fragilaria crotonensis	64.7	3.44
Fragilaria intermedia v. fallax	8.3	0.44
Gloeocystis planctonica	61.3	3.26
Gloeocystis sp.	38.1	2.03
Gomphosphaeria lacustris	397.9	21.15
Green coccoid, unknown	1.7	0.09
Melosira granulata	1.7	0.09
Melosira italica	1.7	0.09
Melosira sp.	1.7	0.09
Navicula cryptocephala	1.7	0.09
Nitzschia acicularis	3.3	0.18
Nitzschia bacata	1.7	0.09
Nitzschia confinis	5.0	0.26
Nitzschia fonticola	5.0	0.26
Nitzschia kuetzingiana	3.3	0.18
Nitzschia paleacea	1.7	0.09
Nitzschia sp.	14.9	0.79
Nitzschia sp. #1	3.3	0.18
Nitzschia sp. #2	1.7	0.09
Nitzschia sublinearis	1.7	0.09
Ochromonas sp.	99.5	5.29
Oscillatoria sp.	1.7	0.09
Pennate diatom (undetermined)	1.7	0.09
Rhizosolenia gracilis	1.7	0.09
Scenedesmus quadricauda v. longispina	13.3	0.70
Scenedesmus quadricauda	13.3	0.70
Scenedesmus sp.	19.9	1.06
Scenedesmus spinosus	8.3	0.44
Stephanodiscus alpinus	3.3	0.18
Stephanodiscus minutus	3.3	0.18
Stephanodiscus niagarae	1.7	0.09
Stephanodiscus sp.	11.6	0.62
Stephanodiscus subtilis	6.6	0.35
Surirella angusta	1.7	0.09
Synedra delicatissima v. angustissima	1.7	0.09
Synedra filiformis	13.3	0.70
Tabellaria fenestrata v. intermedia	6.6	0.35
Total	1881.9	100.0

14 OCT 76 NDC 7-1

Number of forms = 68
Temperature(C) = ---

Diversity = 4.82
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.13
Achnanthes pinnata	3.3	0.13
Amphipleura pellucida	9.9	0.39
Amphora ovalis	23.2	0.92
Amphora ovalis v. constricta	3.3	0.13
Amphora sibirica	9.9	0.39
Asterionella formosa	89.5	3.55
Centric diatom, unknown	199.0	7.88
Chrysophycean flagellate sp.	53.1	2.10
Cryptomonas sp.	39.8	1.58
Cyclotella auxospore	3.3	0.13
Cyclotella comensis	182.4	7.23
Cyclotella cryptica	3.3	0.13
Cyclotella kuetzingiana auxospore	6.6	0.26
Cyclotella kuetzingiana	9.9	0.39
Cyclotella meneghiniana	33.2	1.31
Cyclotella michiganiana	39.8	1.58
Cyclotella stelligera	16.6	0.66
Diatoma tenue v. elongatum	3.3	0.13
Diatoma vulgare	3.3	0.13
Dinoflagellates	39.8	1.58
Flagellates	358.1	14.19
Fragilaria construens	3.3	0.13
Fragilaria crotonensis	301.8	11.96
Fragilaria intermedia	16.6	0.66
Fragilaria pinnata	9.9	0.39
Gloeocystis planctonica	53.1	2.10
Gloeocystis sp.	66.3	2.63
Gyrosigma sp.	3.3	0.13
Melosira granulata	152.5	6.04
Melosira granulata v. angustissima	16.6	0.66
Melosira italica	3.3	0.13
Mougeotia sp	29.8	1.18
Navicula aurora	3.3	0.13
Navicula capitata	3.3	0.13
Navicula capitata v. luneburgensis	3.3	0.13
Navicula circumtexta	3.3	0.13
Navicula costulata	6.6	0.26
Navicula cryptocephala v. intermedia	3.3	0.13
Navicula latens	3.3	0.13
Navicula sp.	13.3	0.53
Navicula tripunctata	3.3	0.13
Nitzschia acicularis	33.2	1.31
Nitzschia bacata	19.9	0.79
Nitzschia capitellata	3.3	0.13
Nitzschia dissipata	3.3	0.13
Nitzschia fonticola	13.3	0.53
Nitzschia kuetzingiana	9.9	0.39
Nitzschia paleacea	29.8	1.18
Nitzschia spiculoides	3.3	0.13
Nitzschia sp.	23.2	0.92
Nitzschia sp. #1	19.9	0.79
Nitzschia sp. #2	6.6	0.26
Ochromonas sp.	56.4	2.23
Pediastrum duplex v. gracillimum	112.7	4.47
Pennate diatom (undetermined)	6.6	0.26
Scenedesmus acuminatus	26.5	1.05
Scenedesmus quadricauda v. longispina	23.2	0.92
Scenedesmus quadricauda	39.8	1.58
Scenedesmus sp.	19.9	0.79
Stephanodiscus hantzschii	3.3	0.13
Stephanodiscus minutus	66.3	2.63
Stephanodiscus subtilis	63.0	2.50
Stephanodiscus tenuis	16.6	0.66
Surirella sp.	3.3	0.13
Synedra delicatissima v. angustissima	3.3	0.13
Synedra filiformis	63.0	2.50
Tabellaria fenestrata v. intermedia	19.9	0.79
Total	2523.6	100.0

14 OCT 76 NDC 7-3

Number of forms = 73
Temperature(C) = ---

Diversity = 4.20
Counted by: S.W.

Taxon	Cells/ml	Percent
Acanthochloris sp.	1.7	0.05
Amphipleura pellucida	11.6	0.38
Amphora ovalis v. pediculus	5.0	0.16
Anabaena flos-aquae	5.0	0.16
Anacystis incerta	66.3	2.14
Anacystis thermalis	58.0	1.88
Ankistrodesmus sp.	5.0	0.16
Ankistrodesmus sp. #3	18.2	0.59
Asteriorella formosa	73.0	2.36
Centric diatom, unknown	91.2	2.95
Chromulina #1	1.7	0.05
Chrysophycean flagellate spp.	6.6	0.21
Crucigenia quadrata	19.9	0.64
Cryptomonas sp.	87.9	2.84
Cyclotella auxospore	14.9	0.48
Cyclotella comensis	122.7	3.97
Cyclotella comta	1.7	0.05
Cyclotella kuetzingiana	13.3	0.43
Cyclotella meneghiniana v. plana	1.7	0.05
Cyclotella meneghiniana	3.3	0.11
Cyclotella michiganiana	26.5	0.86
Cyclotella sp.	212.2	6.86
Cyclotella stelligera	6.6	0.21
Cyclotella temperei	1.7	0.05
Cymatopleura solea	1.7	0.05
Diatoma tenue v elongatum	5.0	0.16
Dinobryon flagellates	3.3	0.11
Dinoflagellates	13.3	0.43
Flagellates	973.3	31.47
Fragilaria capucina	8.3	0.27
Fragilaria crotonensis	303.4	9.81
Fragilaria intermedia	9.9	0.32
Fragilaria intermedia v. fallax	38.1	1.23
Fragilaria pinnata	1.7	0.05
Fragilaria sp.	1.7	0.05
Gloeocystis planctonica	102.8	3.32
Gloeocystis sp.	121.0	3.91
Gomphosphaeria lacustris	124.4	4.02
Green cells, undetermined	11.6	0.38
Green coccoid, unknown	9.9	0.32
Mallomonas sp.	1.7	0.05
Melosira granulata	101.1	3.27
Mougeotia sp.	5.0	0.16
Navicula capitata	5.0	0.16
Navicula cryptocephala	1.7	0.05
Navicula sp.	8.3	0.27
Navicula viridula	1.7	0.05
Nitzschia acicularis	8.3	0.27
Nitzschia confin s	3.3	0.11
Nitzschia dissipata	1.7	0.05
Nitzschia fonticola	9.9	0.32
Nitzschia paleacea	1.7	0.05
Nitzschia sp.	21.6	0.70
Nitzschia sp. #1	8.3	0.27
Ochromonas sp.	56.4	1.82
Pennate diatom (undetermined)	5.0	0.16
Rhizosolenia eriensis	1.7	0.05
Rhoicosphenia curvata	1.7	0.05
Scenedesmus acuminatus	13.3	0.43
Scenedesmus acuminatus v. elongatus	13.3	0.43
Scenedesmus quadricauda v. longispina	18.2	0.59
Scenedesmus sp.	86.2	2.79
Scenedesmus tetradesmiformis	6.6	0.21
Stephanodiscus alpinus	5.0	0.16
Stephanodiscus minutus	8.3	0.27
Stephanodiscus sp.	29.8	0.97
Stephanodiscus subtilis	8.3	0.27
Stephanodiscus tenuis	6.6	0.21
Synedra delicatissima v. angustissima	1.7	0.05
Synedra filiformis	26.5	0.86
Tabellaria fenestrata v. intermedia	36.5	1.18
Tetraedron caudatum	1.7	0.05
Tetraedron minimum	1.7	0.05
Total	3092.3	100.0

Major survey of October 1976, continued.

14 OCT 76 NDC 7-5

Number of forms = 46 Diversity = 3.54
Temperature(C) = -- Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	1.7	0.08
Amphipleura pellucida	13.3	0.67
Amphora ovalis	1.7	0.08
Anacystis thermalis	182.4	9.24
Asterionella formosa	63.0	3.19
Centric diatom, unknown	44.8	2.27
Ceratium hirundinella	1.7	0.08
Chrysophycean flagellate spp.	87.9	4.45
Cocconeis placentula v. lineata	1.7	0.08
Cryptomonas sp.	14.9	0.76
Cyclotella auxospore	3.3	0.17
Cyclotella comensis	509.0	25.80
Cyclotella kuetzingiana	23.2	1.18
Cyclotella michiganiana	73.0	3.70
Cymatopleura solea	1.7	0.08
Dinoflagellates	6.6	0.34
Flagellates	451.0	22.86
Fragilaria crotonensis	200.6	10.17
Fragilaria intermedia	11.6	0.59
Fragilaria pinnata	6.6	0.34
Gloeocystis planctonica	79.6	4.03
Gloeocystis sp.	31.5	1.60
Melosira distans v. alpigena	5.0	0.25
Melosira granulata	1.7	0.08
Mougeotia sp.	19.9	1.01
Nitzschia acicularis	1.7	0.08
Nitzschia bacata	3.3	0.17
Nitzschia confinis	3.3	0.17
Nitzschia fonticola	3.3	0.17
Nitzschia kuetzingiana	1.7	0.08
Nitzschia paleacea	1.7	0.08
Nitzschia spiculoides	1.7	0.08
Nitzschia sp.	8.3	0.42
Nitzschia sp. #1	6.6	0.34
Nitzschia tarda	1.7	0.08
Ochromonas sp.	24.9	1.26
Pennate diatom (undetermined)	3.3	0.17
Scenedesmus quadricauda v. longispina	6.6	0.34
Scenedesmus sp.	3.3	0.17
Stephanodiscus minutus	16.6	0.84
Stephanodiscus subtilis	11.6	0.59
Stephanodiscus tenuis	3.3	0.17
Synedra delicatissima v. angustissima	1.7	0.08
Synedra filiformis	11.6	0.59
Synedra minuscula	1.7	0.08
Tabellaria fenestrata v. intermedia	18.2	0.92
Total	1973.1	100.0

13 OCT 76 SDC .5-0

Number of forms = 54
Temperature(C) = ---

Diversity = 4.51
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphipleura pellucida	3.3	0.16
Amphora #3	3.3	0.16
Anacystis thermalis	6.6	0.33
Ankistrodesmus falcatus	3.3	0.16
Asterionella formosa	102.8	5.05
Centric diatom, unknown	49.7	2.44
Chrysophycean flagellate spp.	16.6	0.81
Cosmarium #1	3.3	0.16
Cryptomonas sp.	19.9	0.98
Cyclotella comensis	136.0	6.68
Cyclotella cryptica	3.3	0.16
Cyclotella kuetzingiana	3.3	0.16
Cyclotella michiganiana	33.2	1.63
Cyclotella sp	99.5	4.89
Flagellates	351.5	17.26
Fragilaria crotonensis	165.8	8.14
Fragilaria intermedia	9.9	0.49
Fragilaria vaucheriae	3.3	0.16
Gloeocystis planctonica	63.0	3.09
Gloeocystis sp.	222.2	10.91
Mallomonas sp.	3.3	0.16
Melosira granulata	49.7	2.44
Melosira italica	19.9	0.98
Mougeotia sp.	6.6	0.33
Navicula capitata	3.3	0.16
Navicula decussis	3.3	0.16
Navicula latens	3.3	0.16
Navicula nyassensis f. minor	3.3	0.16
Navicula sp.	3.3	0.16
Nitzschia acicularis	16.6	0.81
Nitzschia capitellata	3.3	0.16
Nitzschia fonticola	3.3	0.16
Nitzschia kuetzingiana	3.3	0.16
Nitzschia paleacea	3.3	0.16
Nitzschia sp.	26.5	1.30
Nitzschia sp. #1	6.6	0.33
Ochromonas sp.	116.1	5.70
Pediastrum boryanum	53.1	2.61
Pediastrum simplex	26.5	1.30
Pennate diatom (undetermined)	9.9	0.49
Scenedesmus bicellularis	6.6	0.33
Scenedesmus quadricauda v. longispina	46.4	2.28
Scenedesmus quadricauda	29.8	1.47
Scenedesmus sp.	76.3	3.75
Scenedesmus spinosus	13.3	0.65
Schizothrix calcicola	9.9	0.49
Stephanodiscus alpinus	6.6	0.33
Stephanodiscus minutus	6.6	0.33
Stephanodiscus sp.	16.6	0.81
Stephanodiscus subtilis	26.5	1.30
Surirella sp.	3.3	0.16
Synedra delicatissima v. angustissima	3.3	0.16
Synedra filiformis	76.3	3.75
Tabellaria fenestrata v. intermedia	49.7	2.44
Total	2036.1	100.0

14 OCT 76 SDC .5-1

Number of forms = 97
Temperature(C) = ---

Diversity = 5.11
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.06
Achnanthes lanceolata v. dubia	3.3	0.06
Amphipleura pellucida	16.6	0.30
Amphora neglecta	3.3	0.06
Amphora ovalis v. gracilis	3.3	0.06
Amphora ovalis v. pediculus	3.3	0.06
Amphora sibirica	3.3	0.06
Amphora sp.	13.3	0.24
Anabaena flos-aquae	136.0	2.42
Ankistrodesmus falcatus	6.6	0.12
Ankistrodesmus sp. #3	9.9	0.18
Asterionella formosa	189.0	3.36
Caloneis sp.	3.3	0.06
Centric diatom, unknown	252.0	4.49
Chromulina #1	3.3	0.06
Chrysophycean flagellate spp.	13.3	0.24
Cocconeis pediculus	3.3	0.06
Cryptomonas sp.	79.6	1.42
Cyclotella auxospore	13.3	0.24
Cyclotella comensis	245.4	4.37
Cyclotella cryptica	3.3	0.06
Cyclotella kuetzingiana	13.3	0.24
Cyclotella meneghiniana v. plana	3.3	0.06
Cyclotella meneghiniana	19.9	0.35
Cyclotella michiganiana	66.3	1.18
Cyclotella sp.	155.9	2.77
Cyclotella stelligera	13.3	0.24
Cyclotella temperei	3.3	0.06
Diatoma vulgare	3.3	0.06
Dinoflagellates	26.5	0.47
Diploneis boldtiana	3.3	0.06
Diploneis oculata	3.3	0.06
Flagellates	494.1	8.80
Fragilaria capucina	19.9	0.35
Fragilaria crotonensis	577.0	10.27
Fragilaria intermedia v. fallax	82.9	1.48
Fragilaria pinnata	69.6	1.24
Fragilaria sp.	29.8	0.53
Gloeocystis planctonica	142.6	2.54
Gloeocystis sp.	577.0	10.27
Gomphonema olivaceum	6.6	0.12
Gomphonema sp.	3.3	0.06
Green cells, undetermined	36.5	0.65
Green coccoid, unknown	39.8	0.71
Kirchneriella sp.	19.9	0.35
Melosira granulata	364.8	6.49
Melosira italica	19.9	0.35
Mougeotia sp.	53.1	0.94
Navicula capitata	9.9	0.18
Navicula capitata v. luneburgensis	6.6	0.12
Navicula decussis	3.3	0.06
Navicula latens	6.6	0.12
Navicula nyassensis f. minor	6.6	0.12
Navicula placentula v. rostrata	3.3	0.06
Navicula pupula v. rostrata	3.3	0.06
Navicula sp.	23.2	0.41
Navicula viridula	3.3	0.06
Nitzschia acicularis	56.4	1.00
Nitzschia capitellata	16.6	0.30
Nitzschia confinis	3.3	0.06
Nitzschia dissipata	3.3	0.06
Nitzschia fonticola	43.1	0.77
Nitzschia kuetzingiana	3.3	0.06
Nitzschia paleacea	26.5	0.47
Nitzschia sp.	122.7	2.18
Nitzschia sp. #1	36.5	0.65
Nitzschia sublinearis	13.3	0.24
Nitzschia tarda	3.3	0.06
Ochromonas sp.	139.3	2.48
Opephora martyi	3.3	0.06
Pediastrum sp.	66.3	1.18
Pennate diatom (undetermined)	16.6	0.30
Peridinium sp.	6.6	0.12
Rhizosolenia eriensis	3.3	0.06
Scenedesmus acuminatus	19.9	0.35
Scenedesmus acuminatus v. elongatus	53.1	0.94
Scenedesmus quadricauda v. longispina	53.1	0.94
Scenedesmus quadricauda v. longispina f.	13.3	0.24
Scenedesmus quadricauda	39.8	0.71
Scenedesmus sp.	218.9	3.90
Scenedesmus spinosus	19.9	0.35
Stephanodiscus #10	3.3	0.06
Stephanodiscus alpinus	29.8	0.53
Stephanodiscus auxospore	3.3	0.06
Stephanodiscus hantzschii	3.3	0.06
Stephanodiscus minutus	36.5	0.65
Stephanodiscus niagarae	9.9	0.18
Stephanodiscus sp.	69.6	1.24
Stephanodiscus tenuis	33.2	0.59
Surirella angusta	13.3	0.24
Surirella sp.	3.3	0.06
Synedra delicatissima v. angustissima	29.8	0.53
Synedra filiformis	129.3	2.30
Synedra ulna	6.6	0.12
Synura sp.	96.2	1.71
Tabellaria fenestrata v. intermedia	242.1	4.31
Tetraedron caudatum	3.3	0.06
Total	5617.4	100.0

Major survey of October 1976, continued.

14 OCT 76 SDC .5-2

Number of forms = 84
Temperature(C) = ---

Diversity = 4.51
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes #30	1.7	0.07
Achnanthes clevei v. rostrata	1.7	0.07
Amphipleura pellucida	13.3	0.57
Amphora ovalis	9.9	0.42
Amphora sibirica	3.3	0.14
Amphora sp.	1.7	0.07
Anacystis thermalis	13.3	0.57
Asterionella formosa	73.0	3.11
Centric diatom, unknown	36.5	1.55
Ceratium hirundinella	1.7	0.07
Chrysophycean flagellate spp.	38.1	1.63
Crucigenia quadrata	26.5	1.13
Cryptomonas sp.	34.8	1.48
Cyclotella auxospore	11.6	0.49
Cyclotella comensis	393.0	16.75
Cyclotella comta	1.7	0.07
Cyclotella cryptica	5.0	0.21
Cyclotella kuetzingiana	16.6	0.71
Cyclotella meneghiniana	28.2	1.20
Cyclotella michiganiana	58.0	2.47
Cyclotella stelligera	14.9	0.64
Cymbella tumida	1.7	0.07
Diatoma vulgare	1.7	0.07
Dinoflagellates	18.2	0.78
Diploneis oculata	1.7	0.07
Diploneis parma	1.7	0.07
Flagellates	96.2	4.10
Fragilaria capucina	13.3	0.57
Fragilaria construens	13.3	0.57
Fragilaria crotonensis	540.5	23.04
Fragilaria intermedia	112.7	4.81
Fragilaria pinnata	11.6	0.49
Fragilaria sp.	3.3	0.14
Gloeocystis planctonica	73.0	3.11
Gloeocystis sp.	9.9	0.42
Golenkinia radiata	1.7	0.07
Gomphonema lanceolatum	1.7	0.07
Gomphonema olivaceum	3.3	0.14
Kirchneriella sp.	3.3	0.14
Melosira distans v. alpigena	5.0	0.21
Melosira granulata	74.6	3.18
Melosira italica	9.9	0.42
Mougeotia sp.	24.9	1.06
Navicula anglica v. subsalsa	1.7	0.07
Navicula aurora	3.3	0.14
Navicula capitata	1.7	0.07
Navicula capitata v. luneburgensis	1.7	0.07
Navicula costulata	3.3	0.14
Navicula lanceolata	1.7	0.07
Navicula latens	1.7	0.07
Navicula menisculus v. upsaliensis	1.7	0.07
Navicula micropupula	1.7	0.07
Navicula sp.	3.3	0.14
Nitzschia acicularis	1.7	0.07
Nitzschia acuta	1.7	0.07
Nitzschia bacata	5.0	0.21
Nitzschia capitellata	1.7	0.07
Nitzschia confinis	14.9	0.64
Nitzschia fonticola	6.6	0.28
Nitzschia kuetzingiana	5.0	0.21
Nitzschia palea	3.3	0.14
Nitzschia paleacea	8.3	0.35
Nitzschia spiculoides	1.7	0.07
Nitzschia sp. #1	13.3	0.57
Ochromonas sp.	16.6	0.71
Pediastrum duplex	69.6	2.97
Pediastrum duplex v. gracillimum	53.1	2.26
Pennate diatom (undetermined)	1.7	0.07
Rhizosolenia gracilis	1.7	0.07
Scenedesmus acuminatus	13.3	0.57
Scenedesmus quadricauda v. longispina	19.9	0.85
Stephanodiscus #10	3.3	0.14
Stephanodiscus alpinus	5.0	0.21
Stephanodiscus binderanus	3.3	0.14
Stephanodiscus hantzschii	1.7	0.07
Stephanodiscus minutus	49.7	2.12
Stephanodiscus sp.	6.6	0.28
Stephanodiscus subtilis	11.6	0.49
Stephanodiscus tenuis	21.6	0.92
Surirella angusta	3.3	0.14
Synedra delicatissima v. angustissima	3.3	0.14
Synedra filiformis	49.7	2.12
Synedra minuscula	1.7	0.07
Tabellaria fenestrata v. intermedia	117.7	5.02
Total	2346.2	100.0

13 OCT 76 SDC 1-0

Number of forms = 76
Temperature(C) = ---

Diversity = 4.86
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	1.7	0.10
Achnanthes lanceolata v. elliptica	1.7	0.10
Amphipleura pellucida	1.7	0.10
Amphora ovalis v. pediculus	5.0	0.30
Amphora sp.	6.6	0.40
Anabaena flos-aquae	59.7	3.60
Anacystis incerta	223.8	13.50
Anacystis thermalis	13.3	0.80
Ankistrodesmus sp. #3	5.0	0.30
Asterionella formosa	58.0	3.50
Centric diatom, unknown	43.1	2.60
Chromulina #1	5.0	0.30
Chrysophycean flagellate spp.	11.6	0.70
Crucigenia quadrata	58.0	3.50
Cryptomonas sp.	24.9	1.50
Cyclotella auxospore	1.7	0.10
Cyclotella comensis	109.4	6.60
Cyclotella kuetzingiana	8.3	0.50
Cyclotella meneghiniana	3.3	0.20
Cyclotella michiganiana	33.2	2.00
Cyclotella sp.	86.2	5.20
Cyclotella stelligera	3.3	0.20
Dictyosphaerium sp.	6.6	0.40
Dinoflagellates	6.6	0.40
Diploneis oculata	1.7	0.10
Flagellates	217.2	13.10
Fragilaria construens	13.3	0.80
Fragilaria crotonensis	11.6	0.70
Fragilaria pinnata	8.3	0.50
Fragilaria pinnata v. lancettula	1.7	0.10
Gloeocystis planctonica	33.2	2.00
Gloeocystis sp.	94.5	5.70
Golenkinia radiata	1.7	0.10
Golenkinia sp.	1.7	0.10
Gomphonema sp.	3.3	0.20
Gomphosphaeria lacustris	106.1	6.40
Green cells, undetermined	34.8	2.10
Green coccoid, unknown	3.3	0.20
Green filament, unknown	3.3	0.20
Kirchneriella contorta	5.0	0.30
Kirchneriella sp.	5.0	0.30
Lagerheimia subsalsa	1.7	0.10
Melosira granulata	11.6	0.70
Melosira islandica	3.3	0.20
Melosira italica	5.0	0.30
Mougeotia sp.	3.3	0.20
Navicula capitata v. luneburgensis	1.7	0.10
Navicula decussis	5.0	0.30
Navicula latens	1.7	0.10
Navicula sp.	3.3	0.20
Nitzschia acicularis	18.2	1.10
Nitzschia confinis	3.3	0.20
Nitzschia fonticola	8.3	0.50
Nitzschia kuetzingiana	3.3	0.20
Nitzschia paleacea	5.0	0.30
Nitzschia sp.	19.9	1.20
Nitzschia sp. #1	8.3	0.50
Ochromonas sp.	73.0	4.40
Pediastrum duplex v reticulatum	11.6	0.70
Pediastrum duplex v. clathratum	1.7	0.10
Pennate diatom (undetermined)	3.3	0.20
Scenedesmus bicellularis	3.3	0.20
Scenedesmus quadricauda v. longispina	13.3	0.80
Scenedesmus quadricauda	3.3	0.20
Scenedesmus sp.	21.6	1.30
Scenedesmus spinosus	13.3	0.80
Stephanodiscus alpinus	5.0	0.30
Stephanodiscus minutus	6.6	0.40
Stephanodiscus sp.	18.2	1.10
Stephanodiscus subtilis	16.6	1.00
Stephanodiscus tenuis	3.3	0.20
Synedra delicatissima v. angustissima	5.0	0.30
Synedra filiformis	19.9	1.20
Tabellaria fenestrata v. intermedia	8.3	0.50
Tetraedron caudatum	1.7	0.10
Tetraedron minimum	3.3	0.20
Total	1658.1	100.0

14 OCT 76 SDC 1-1

Number of forms = 92 Diversity = 4.93
Temperature(C) = --- Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.12
Achnanthes lanceolata v. dubia	1.7	0.06
Achnanthes pinnata	3.3	0.12
Amphipleura pellucida	3.3	0.12
Amphora ovalis	13.3	0.48
Amphora ovalis v. libyca	1.7	0.06
Amphora ovalis v. pediculus	3.3	0.12
Amphora sp.	6.6	0.24
Anabaena flos-aquae	300.1	10.84
Anacystis thermalis	6.6	0.24
Asterionella formosa	99.5	3.59
Caloneis ventricosa v. minuta	3.3	0.12
Centric diatom, unknown	54.7	1.98
Chrysophycean flagellate spp.	38.1	1.38
Cocconeis pediculus	1.7	0.06
Cocconeis placentula v. euglypta	1.7	0.06
Crucigenia quadrata	13.3	0.48
Cryptomonas sp.	28.2	1.02
Cyclotella comensis	228.8	8.27
Cyclotella cryptica	1.7	0.06
Cyclotella kuetzingiana	16.6	0.60
Cyclotella meneghiniana	33.2	1.20
Cyclotella michiganiana	41.5	1.50
Cyclotella stelligera	8.3	0.30
Cymbella sp.	5.0	0.18
Cymbella ventricosa	1.7	0.06
Diatoma tenue v. elongatum	5.0	0.18
Dinoflagellates	11.6	0.42
Flagellates	86.2	3.12
Fragilaria brevistriata	1.7	0.06
Fragilaria capucina	21.6	0.78
Fragilaria construens	53.1	1.92
Fragilaria crotonensis	416.2	15.04
Fragilaria intermedia	29.8	1.08
Fragilaria pinnata	18.2	0.66
Gloeocystis planctonica	91.2	3.30
Gloeocystis sp.	137.6	4.97
Golenkinia sp.	1.7	0.06
Gomphonema olivaceum	5.0	0.18
Kirchneriella sp.	5.0	0.18
Mallomonas pseudocoronata	1.7	0.06
Melosira granulata	194.0	7.01
Melosira granulata v. angustissima	29.8	1.08
Melosira italica	1.7	0.06
Mougeotia sp.	34.8	1.26
Navicula anglica	1.7	0.06
Navicula capitata	6.6	0.24
Navicula capitata v. luneburgensis	1.7	0.06
Navicula clementis v. quadristigmata	3.3	0.12
Navicula costulata	1.7	0.06
Navicula decussis	5.0	0.18
Navicula exiguaformis	1.7	0.06
Navicula latens	6.6	0.24
Navicula menisculus v. upsaliensis	6.6	0.24
Navicula menisculus	3.3	0.12
Navicula sp.	5.0	0.18
Nitzschia acicularis	3.3	0.12
Nitzschia acuta	6.6	0.24
Nitzschia bacata	1.7	0.06
Nitzschia capitellata	1.7	0.06
Nitzschia confinis	8.3	0.30
Nitzschia dissipata	3.3	0.12
Nitzschia fonticola	9.9	0.36
Nitzschia kuetzingiana	8.3	0.30
Nitzschia paleacea	9.9	0.36
Nitzschia recta	3.3	0.12
Nitzschia spiculoides	13.3	0.48
Nitzschia sp.	29.8	1.08
Nitzschia sp. #1	26.5	0.96
Nitzschia sp. #2	3.3	0.12
Ochromonas sp.	18.2	0.66
Oscillatoria sp.	1.7	0.06
Pennate diatom (undetermined)	11.6	0.42
Rhizosolenia eriensis	1.7	0.06
Rhizosolenia gracilis	1.7	0.06
Rhoicosphenia curvata	1.7	0.06
Scenedesmus acuminatus	6.6	0.24
Scenedesmus quadricauda v. longispina	33.2	1.20
Scenedesmus quadricauda	13.3	0.48
Scenedesmus sp.	14.9	0.54
Scenedesmus spinosus	24.9	0.90
Stephanodiscus hantzschii	3.3	0.12
Stephanodiscus minutus	59.7	2.16
Stephanodiscus sp.	1.7	0.06
Stephanodiscus subtilis	49.7	1.80
Stephanodiscus tenuis	24.9	0.90
Synedra delicatissima v. angustissima	6.6	0.24
Synedra filiformis	46.4	1.68
Synura sp.	124.4	4.49
Tabellaria fenestrata v. intermedia	79.6	2.88
Tetraedron caudatum	1.7	0.06
Tetrastrum staurogeniaeforme	1.7	0.06
Total	2767.3	100.0

14 OCT 76 SDC 1-2

Number of forms = 64
Temperature(C) = ---

Diversity = 4.28
Counted by: S.W.

Taxon	Cells/ml	Percent
Amphipleura pellucida	3.3	0.21
Amphora sp.	3.3	0.21
Anacystis incerta	132.6	8.39
Anacystis thermalis	3.3	0.21
Ankistrodesmus sp. #3	3.3	0.21
Asterionella formosa	41.5	2.62
Caloneis sp.	1.7	0.10
Centric diatom, unknown	54.7	3.46
Chrysophycean flagellate spp.	8.3	0.52
Coelastrum sp.	26.5	1.68
Crucigenia quadrata	13.3	0.84
Cryptomonas sp.	23.2	1.47
Cyclotella auxospore	1.7	0.10
Cyclotella comensis	18.2	1.15
Cyclotella kuetzingiana	6.6	0.42
Cyclotella meneghiniana	8.3	0.52
Cyclotella michiganiana	16.6	1.05
Cyclotella operculata	1.7	0.10
Cyclotella sp.	91.2	5.77
Cyclotella stelligera	1.7	0.10
Diatoma tenue v. elongatum	3.3	0.21
Dinobryon flagellates	1.7	0.10
Dinoflagellates	1.7	0.10
Flagellates	316.7	20.04
Fragilaria crotonensis	313.4	19.83
Fragilaria intermedia	3.3	0.21
Fragilaria pinnata	3.3	0.21
Gloeocystis planctonica	26.5	1.68
Gloeocystis sp.	61.3	3.88
Gomphonema olivaceum	1.7	0.10
Green cells, undetermined	5.0	0.31
Green coccoid, unknown	5.0	0.31
Mallomonas pseudocoronata	1.7	0.10
Melosira granulata	58.0	3.67
Melosira italica	3.3	0.21
Mougeotia sp.	8.3	0.52
Navicula decussis	1.7	0.10
Navicula latens	1.7	0.10
Navicula sp.	11.6	0.73
Nitzschia acicularis	5.0	0.31
Nitzschia capitellata	1.7	0.10
Nitzschia confinis	1.7	0.10
Nitzschia fonticola	8.3	0.52
Nitzschia kuetzingiana	1.7	0.10
Nitzschia paleacea	1.7	0.10
Nitzschia sp.	23.2	1.47
Nitzschia sp. #1	8.3	0.52
Nitzschia tarda	1.7	0.10
Ochromonas sp.	44.8	2.83
Pennate diatom (undetermined)	6.6	0.42
Rhizosolenia eriensis	3.3	0.21
Scenedesmus acuminatus	9.9	0.63
Scenedesmus acuminatus v. elongatus	9.9	0.63
Scenedesmus bicellularis	9.9	0.63
Scenedesmus quadricauda v. longispina	8.3	0.52
Scenedesmus quadricauda	5.0	0.31
Scenedesmus sp.	59.7	3.78
Stephanodiscus alpinus	3.3	0.21
Stephanodiscus minutus	1.7	0.10
Stephanodiscus sp.	18.2	1.15
Stephanodiscus subtilis	3.3	0.21
Synedra delicatissima v. angustissima	1.7	0.10
Synedra filiformis	28.2	1.78
Tabellaria fenestrata v. intermedia	23.2	1.47
Total	1580.1	100.0

13 OCT 76 SDC 2-0

Number of forms = 69
Temperature(C) = ---

Diversity = 4.38
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes lanceolata v. dubia	1.7	0.09
Amphipleura pellucida	9.9	0.55
Amphora ovalis	1.7	0.09
Amphora ovalis v. pediculus	3.3	0.18
Amphora sibirica	1.7	0.09
Amphora sp.	6.6	0.37
Anacystis incerta	290.2	16.14
Anacystis thermalis	13.3	0.74
Ankistrodesmus sp. #3	5.0	0.28
Asterionella formosa	41.5	2.31
Caloneis sp.	1.7	0.09
Centric diatom, unknown	33.2	1.85
Chromulina #1	11.6	0.65
Chromulina parvula	1.7	0.09
Chrysophycean flagellate spp.	26.5	1.48
Crucigenia quadrata	26.5	1.48
Cryptomonas sp.	14.9	0.83
Cyclotella auxospore	3.3	0.18
Cyclotella comensis	56.4	3.14
Cyclotella kuetzingiana	1.7	0.09
Cyclotella meneghiniana	5.0	0.28
Cyclotella michiganiana auxospore	1.7	0.09
Cyclotella michiganiana	33.2	1.85
Cyclotella sp.	122.7	6.83
Diatoma tenue v. elongatum	1.7	0.09
Dinobryon divergens	1.7	0.09
Dinoflagellates	3.3	0.18
Flagellates	348.2	19.37
Fragilaria construens	6.6	0.37
Fragilaria crotonensis	97.8	5.44
Fragilaria intermedia	3.3	0.18
Fragilaria intermedia v. fallax	6.6	0.37
Fragilaria sp.	5.0	0.28
Fragilaria vaucheriae	1.7	0.09
Gloeocystis planctonica	13.3	0.74
Gloeocystis sp.	109.4	6.09
Gomphonema sp.	1.7	0.09
Mallomonas sp.	1.7	0.09
Melosira granulata	86.2	4.80
Micractinium sp.	1.7	0.09
Mougeotia sp.	5.0	0.28
Navicula latens	3.3	0.18
Navicula sp.	5.0	0.28
Nitzschia acicularis	16.6	0.92
Nitzschia acuta	1.7	0.09
Nitzschia bacata	1.7	0.09
Nitzschia capitellata	1.7	0.09
Nitzschia confinis	3.3	0.18
Nitzschia fonticola	5.0	0.28
Nitzschia paleacea	3.3	0.18
Nitzschia sp.	11.6	0.65
Nitzschia sp. #1	1.7	0.09
Ochromonas sp.	129.3	7.20
Pennate diatom (undetermined)	8.3	0.46
Rhizosolenia eriensis	1.7	0.09
Rhizosolenia gracilis	3.3	0.18
Rhoicosphenia curvata	1.7	0.09
Scenedesmus acuminatus	13.3	0.74
Scenedesmus bicellularis	9.9	0.55
Scenedesmus quadricauda v. longispina	33.2	1.85
Scenedesmus sp.	36.5	2.03
Stephanodiscus alpinus	1.7	0.09
Stephanodiscus minutus	1.7	0.09
Stephanodiscus sp.	14.9	0.83
Stephanodiscus subtilis	9.9	0.55
Stephanodiscus tenuis	3.3	0.18
Synedra filiformis	26.5	1.48
Tabellaria fenestrata v. intermedia	34.8	1.94
Tetraedron caudatum	3.3	0.18
Total	1797.3	100.0

14 OCT 76 SDC 2-1

Number of forms = 71
Temperature(C) = ---

Diversity = 4.63
Counted by: S.K.

Taxon	Cells/ml	Percent
Acanthochloris sp.	3.3	0.11
Achnanthes lanceolata v. dubia	3.3	0.11
Achnanthes sp.	3.3	0.11
Amphipleura pellucida	3.3	0.11
Amphora ovalis	3.3	0.11
Amphora ovalis v. pediculus	6.6	0.23
Amphora sp.	3.3	0.11
Anacystis incerta	497.4	17.03
Asterionella formosa	79.6	2.72
Caloneis ventricosa v. minuta	3.3	0.11
Centric diatom, unknown	63.0	2.16
Ceratium hirundinella	3.3	0.11
Chrysophycean flagellate spp.	96.2	3.29
Cocconeis diminuta	3.3	0.11
Cryptomonas sp.	33.2	1.14
Cyclotella auxospore	3.3	0.11
Cyclotella comensis	245.4	8.40
Cyclotella kuetzingiana	9.9	0.34
Cyclotella meneghiniana	13.3	0.45
Cyclotella michiganiana	56.4	1.93
Cyclotella sp.	13.3	0.45
Cyclotella stelligera	23.2	0.79
Dinoflagellates	13.3	0.45
Flagellates	278.6	9.53
Fragilaria construens	19.9	0.68
Fragilaria construens v. venter	3.3	0.11
Fragilaria crotonensis	169.1	5.79
Fragilaria intermedia	53.1	1.82
Fragilaria pinnata	29.8	1.02
Fragilaria pinnata v. lancettula	6.6	0.23
Gloeocystis planctonica	338.2	11.58
Gloeocystis sp.	36.5	1.25
Melosira granulata	69.6	2.38
Melosira italica	9.9	0.34
Mougeotia sp.	16.6	0.57
Navicula anglica v. subsalsa	3.3	0.11
Navicula capitata	3.3	0.11
Navicula capitata v. luneburgensis	3.3	0.11
Navicula decussis	13.3	0.45
Navicula latens	3.3	0.11
Navicula radiosa v. tenella	3.3	0.11
Navicula sp.	6.6	0.23
Navicula tripunctata	3.3	0.11
Navicula viridula	3.3	0.11
Navicula viridula v. linearis	3.3	0.11
Nitzschia acicularis	6.6	0.23
Nitzschia bacata	3.3	0.11
Nitzschia confinis	9.9	0.34
Nitzschia kuetzingiana	6.6	0.23
Nitzschia palea	3.3	0.11
Nitzschia paleacea	6.6	0.23
Nitzschia sp.	9.9	0.34
Nitzschia sp. #1	3.3	0.11
Ochromonas sp.	39.8	1.36
Oocystis sp.	13.3	0.45
Pennate diatom (undetermined)	26.5	0.91
Scenedesmus acuminatus	6.6	0.23
Scenedesmus acutus	6.6	0.23
Scenedesmus quadricauda	26.5	0.91
Scenedesmus sp.	46.4	1.59
Scenedesmus tetradesmiformis	26.5	0.91
Stephanodiscus #10	16.6	0.57
Stephanodiscus alpinus	3.3	0.11
Stephanodiscus minutus	36.5	1.25
Stephanodiscus sp.	13.3	0.45
Stephanodiscus subtilis	26.5	0.91
Stephanodiscus tenuis	69.6	2.38
Synedra delicatissima v. angustissima	3.3	0.11
Synedra filiformis	46.4	1.59
Synura uvella	152.5	5.22
Tabellaria fenestrata v. intermedia	49.7	1.70
Total	2921.5	100.0

14 OCT 76 SDC 2-3

Number of forms = 62
Temperature(C) = ---

Diversity = 4.49
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	1.7	0.09
Amphipleura pellucida	14.9	0.85
Amphora sp.	5.0	0.28
Anabaena flos-aquae	46.4	2.65
Anacystis thermalis	59.7	3.41
Ankistrodesmus gelifactum	6.6	0.38
Asterionella formosa	142.6	8.14
Centric diatom, unknown	73.0	4.17
Ceratium hirundinella	1.7	0.09
Chrysophycean flagellate spp.	74.6	4.26
Cryptomonas sp.	28.2	1.61
Cyclotella auxospore	8.3	0.47
Cyclotella comensis	86.2	4.92
Cyclotella kuetzingiana	14.9	0.85
Cyclotella meneghiniana	9.9	0.57
Cyclotella michiganiana	6.6	0.38
Cyclotella sp.	11.6	0.66
Cyclotella stelligera	5.0	0.28
Cymatopleura solea	1.7	0.09
Diatoma tenue v. elongatum	3.3	0.19
Dinobryon divergens	19.9	1.14
Dinoflagellates	31.5	1.80
Flagellates	343.2	19.60
Fragilaria capucina	9.9	0.57
Fragilaria crotonensis	230.5	13.16
Fragilaria intermedia	31.5	1.80
Fragilaria sp.	9.9	0.57
Gloeocystis planctonica	33.2	1.89
Gloeocystis sp.	89.5	5.11
Gomphonema olivaceum	1.7	0.09
Kirchneriella sp.	3.3	0.19
Melosira distans v. alpigena	5.0	0.28
Melosira granulata	39.8	2.27
Melosira italica	6.6	0.38
Navicula #78	1.7	0.09
Navicula micropupula	1.7	0.09
Navicula pupula	1.7	0.09
Navicula viridula	1.7	0.09
Nitzschia acicularis	5.0	0.28
Nitzschia confinis	1.7	0.09
Nitzschia dissipata	1.7	0.09
Nitzschia fonticola	1.7	0.09
Nitzschia kuetzingiana	3.3	0.19
Nitzschia palea	3.3	0.19
Nitzschia paleacea	6.6	0.38
Nitzschia sp.	6.6	0.38
Nitzschia sp. #1	1.7	0.09
Nitzschia tarda	1.7	0.09
Ochromonas sp.	48.1	2.75
Pennate diatom (undetermined)	11.6	0.66
Peridinium sp.	1.7	0.09
Scenedesmus acuminatus	13.3	0.76
Scenedesmus balatonicus	19.9	1.14
Scenedesmus quadricauda v. longispina	19.9	1.14
Scenedesmus sp.	6.6	0.38
Staurastrum paradoxicum	1.7	0.09
Stephanodiscus minutus	9.9	0.57
Stephanodiscus sp.	6.6	0.38
Stephanodiscus tenuis	8.3	0.47
Surirella angusta	1.7	0.09
Synedra filiformis	23.2	1.33
Tabellaria fenestrata v. intermedia	81.2	4.64
Total	1750.9	100.0

13 OCT 76 SDC 4-0

Number of forms = 59
Temperature(C) = ---

Diversity = 4.37
Counted by: S.K.

Taxon	Cells/ml	Percent
Achnanthes minutissima	3.3	0.24
Achnanthes sp.	3.3	0.24
Amphipleura pellucida	3.3	0.24
Amphora sp.	3.3	0.24
Amphora #16	1.7	0.12
Anacystis thermalis	21.6	1.59
Asterionella formosa	119.4	8.78
Centric diatom, unknown	46.4	3.41
Ceratium hirundinella	1.7	0.12
Chrysophycean flagellate spp.	49.7	3.66
Cryptomonas sp.	18.2	1.34
Cyclotella comensis	293.5	21.59
Cyclotella kuetzingiana	11.6	0.85
Cyclotella meneghiniana	5.0	0.37
Cyclotella michiganiana	38.1	2.80
Cyclotella sp.	29.8	2.20
Diatoma tenue v. elongatum	1.7	0.12
Dinoflagellates	8.3	0.61
Flagellates	139.3	10.24
Fragilaria construens	8.3	0.61
Fragilaria crotonensis	99.5	7.32
Fragilaria intermedia	6.6	0.49
Fragilaria pinnata	1.7	0.12
Gloeocystis planctonica	33.2	2.44
Gloeocystis sp.	97.8	7.20
Kirchneriella sp.	5.0	0.37
Melosira granulata	33.2	2.44
Melosira varians	5.0	0.37
Mougeotia sp.	13.3	0.98
Navicula aurora	1.7	0.12
Navicula capitata v. luneburgensis	1.7	0.12
Navicula costulata	1.7	0.12
Navicula decussis	1.7	0.12
Navicula gregaria	1.7	0.12
Navicula latens	3.3	0.24
Nitzschia acicularis	6.6	0.49
Nitzschia capitellata	1.7	0.12
Nitzschia confinis	6.6	0.49
Nitzschia dissipata	1.7	0.12
Nitzschia fonticola	11.6	0.85
Nitzschia kuetzingiana	1.7	0.12
Nitzschia palea	1.7	0.12
Nitzschia paleacea	3.3	0.24
Nitzschia spiculoides	3.3	0.24
Nitzschia sp.	5.0	0.37
Nitzschia sp. #18	1.7	0.12
Nitzschia sp. #1	3.3	0.24
Ochromonas sp.	43.1	3.17
Rhizosolenia eriensis	1.7	0.12
Scenedesmus acuminatus	19.9	1.46
Scenedesmus quadricauda	13.3	0.98
Stephanodiscus minutus	9.9	0.73
Stephanodiscus sp.	6.6	0.49
Stephanodiscus subtilis	5.0	0.37
Stephanodiscus tenuis	1.7	0.12
Synedra delicatissima v. angustissima	3.3	0.24
Synedra filiformis	58.0	4.27
Tabellaria fenestrata v. intermedia	33.2	2.44
Tetrastrum staurogeniaeforme	1.7	0.12
Total	1359.6	100.0

14 OCT 76 SDC 4-1

Number of forms = 93
Temperature(C) = ---

Diversity = 5.10
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes #30	3.3	0.10
Achnanthes sp.	6.6	0.19
Amphora auxospore	3.3	0.10
Amphora neglecta	6.6	0.19
Amphora ovalis	3.3	0.10
Amphora ovalis v. gracilis	3.3	0.10
Amphora ovalis v. pediculus	6.6	0.19
Amphora sp.	6.6	0.19
Amphora #3	3.3	0.10
Anacystis thermalis	79.6	2.34
Ankistrodesmus falcatus	9.9	0.29
Ankistrodesmus sp. #3	6.6	0.19
Asterionella formosa	132.6	3.89
Bicoeca paropsis	3.3	0.10
Caloneis ventricosa v. minuta	3.3	0.10
Centric diatom, unknown	139.3	4.09
Coelastrum sp.	53.1	1.56
Cryptomonas sp.	29.8	0.88
Cyclotella comensis auxospore	3.3	0.10
Cyclotella comensis	172.4	5.06
Cyclotella comta	3.3	0.10
Cyclotella kuetzingiana auxospore	3.3	0.10
Cyclotella kuetzingiana	19.9	0.58
Cyclotella meneghiniana	16.6	0.49
Cyclotella michiganiana	39.8	1.17
Cyclotella sp.	92.9	2.73
Cyclotella stelligera	23.2	0.68
Cymatopleura solea	3.3	0.10
Cymbella sp.	3.3	0.10
Dinoflagellates	23.2	0.68
Flagellates	344.9	10.13
Fragilaria capucina v. mesolepta	9.9	0.29
Fragilaria capucina	36.5	1.07
Fragilaria construens	3.3	0.10
Fragilaria construens v. binodis	29.8	0.88
Fragilaria crotonensis	417.8	12.27
Fragilaria intermedia v. fallax	16.6	0.49
Fragilaria pinnata	36.5	1.07
Gloeocystis planctonica	59.7	1.75
Gloeocystis sp.	212.2	6.23
Golenkinia sp.	6.6	0.19
Gomphonema parvulum v. micropus	3.3	0.10
Gomphonema sp.	3.3	0.10
Gomphosphaeria lacustris	341.6	10.03
Green cells, undetermined	6.6	0.19
Green coccoid, unknown	13.3	0.39
Melosira granulata	92.9	2.73
Melosira italica	13.3	0.39
Mougeotia sp.	19.9	0.58
Navicula #78	3.3	0.10
Navicula capitata	9.9	0.29
Navicula capitata v. luneburgensis	3.3	0.10
Navicula cryptocephala	3.3	0.10
Navicula decussis	13.3	0.39
Navicula latens	9.9	0.29
Navicula micropupula	3.3	0.10
Navicula sp.	3.3	0.10
Nitzschia acicularis	43.1	1.27
Nitzschia confinis	9.9	0.29
Nitzschia dissipata	9.9	0.29
Nitzschia fonticola	19.9	0.58
Nitzschia kuetzingiana	9.9	0.29
Nitzschia palea	3.3	0.10
Nitzschia paleacea	13.3	0.39
Nitzschia spiculoides	3.3	0.10
Nitzschia sp.	56.4	1.66
Nitzschia sp. #1	16.6	0.49
Nitzschia sublinearis	3.3	0.10
Nitzschia tarda	3.3	0.10
Ochromonas sp.	119.4	3.51
Pennate diatom (undetermined)	33.2	0.97
Rhizosolenia gracilis	3.3	0.10
Scenedesmus acuminatus v. elongatus	13.3	0.39
Scenedesmus bicellularis	33.2	0.97
Scenedesmus quadricauda v. longispina	56.4	1.66
Scenedesmus quadricauda	13.3	0.39
Scenedesmus sp.	53.1	1.56
Scenedesmus spinosus	6.6	0.19
Scenedesmus tetradesmiformis	6.6	0.19
Schroederia sp.	3.3	0.10
Stephanodiscus #10	3.3	0.10
Stephanodiscus alpinus	16.6	0.49
Stephanodiscus hantzschii	3.3	0.10
Stephanodiscus minutus	13.3	0.39
Stephanodiscus sp.	56.4	1.66
Stephanodiscus subtilis	49.7	1.46
Stephanodiscus tenuis	16.6	0.49
Surirella sp.	3.3	0.10
Synedra delicatissima v. angustissima	6.6	0.19
Synedra filiformis	53.1	1.56
Synedra ulna v. chaseana	6.6	0.19
Tabellaria fenestrata v. intermedia	16.6	0.49
Tetraedron caudatum	3.3	0.10
Total	3405.7	100.0

Major survey of October 1976, continued.

14 OCT 76 SDC 4-3

Number of forms = 54
Temperature(C) = ---

Diversity = 4.25
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	3.3	0.14	Melosira distans v. alpigena	6.6	0.27
Amphipleura pellucida	39.8	1.63	Melosira granulata	36.5	1.49
Amphora ovalis	3.3	0.14	Melosira granulata v. angustissima	16.6	0.68
Amphora sp.	3.3	0.14	Melosira italica	16.6	0.68
Ankistrodesmus falcatus	3.3	0.14	Nitzschia acicularis	19.9	0.81
Asterionella formosa	179.1	7.32	Nitzschia acuta	3.3	0.14
Centric diatom, unknown	59.7	2.44	Nitzschia bacata	6.6	0.27
Chrysophycean flagellate spp.	106.1	4.34	Nitzschia capitellata	6.6	0.27
Crucigenia quadrata	106.1	4.34	Nitzschia confinis	6.6	0.27
Cryptomonas sp.	39.8	1.63	Nitzschia fonticola	6.6	0.27
Cyclotella comensis	354.8	14.50	Nitzschia kuetzingiana	6.6	0.27
Cyclotella comta	6.6	0.27	Nitzschia palea	3.3	0.14
Cyclotella kuetzingiana auxospore	6.6	0.27	Nitzschia paleacea	16.6	0.68
Cyclotella kuetzingiana	26.5	1.08	Nitzschia sp. #1	9.9	0.41
Cyclotella meneghiniana	3.3	0.14	Ochromonas sp.	56.4	2.30
Cyclotella michiganiana	73.0	2.98	Rhizosolenia eriensis	6.6	0.27
Cyclotella stelligera	6.6	0.27	Rhizosolenia gracilis	6.6	0.27
Diatoma hiemale	3.3	0.14	Scenedesmus acuminatus	13.3	0.54
Diatoma tenue v. elongatum	6.6	0.27	Scenedesmus quadricauda	6.6	0.27
Dinoflagellates	6.6	0.27	Stephanodiscus #10	13.3	0.54
Flagellates	325.0	13.28	Stephanodiscus minutus	23.2	0.95
Fragilaria crotonensis	437.7	17.89	Stephanodiscus subtilis	39.8	1.63
Fragilaria intermedia	23.2	0.95	Stephanodiscus tenuis	19.9	0.81
Fragilaria pinnata	3.3	0.14	Synedra filiformis	36.5	1.49
Gloeocystis planctonica	132.6	5.42	Synedra minuscula	3.3	0.14
Gloeocystis sp.	6.6	0.27	Tabellaria fenestrata	3.3	0.14
Gyrosigma sp.	3.3	0.14	Tabellaria fenestrata v. intermedia	86.2	3.52
			Total	2447.3	100.0

14 OCT 76 SDC 7-1

Number of forms = 70
Temperature(C) = ---

Diversity = 4.33
Counted by: S.W.

Taxon	Cells/ml	Percent
Achnanthes clevei v. rostrata	6.6	0.21
Achnanthes lanceolata	3.3	0.10
Achnanthes sp.	9.9	0.31
Amphipleura pellucida	6.6	0.21
Amphora neglecta	3.3	0.10
Amphora ovalis v. gracilis	3.3	0.10
Amphora sp.	9.9	0.31
Amphora #3	3.3	0.10
Anacystis thermalis	33.2	1.03
Asterionella formosa	199.0	6.19
Caloneis sp.	6.6	0.21
Centric diatom, unknown	73.0	2.27
Chromulina parvula	6.6	0.21
Chrysophycean flagellate spp.	19.9	0.62
Coelastrum sp.	6.6	0.21
Cryptomonas sp.	16.6	0.52
Cyclotella auxospore	3.3	0.10
Cyclotella comensis	145.9	4.54
Cyclotella kuetzingiana	13.3	0.41
Cyclotella meneghiniana	13.3	0.41
Cyclotella sp.	106.1	3.30
Cymbella prostrata	3.3	0.10
Diatoma vulgare	3.3	0.10
Dinoflagellates	6.6	0.21
Flagellates	484.2	15.07
Fragilaria construens	29.8	0.93
Fragilaria crotonensis	331.6	10.32
Fragilaria intermedia	9.9	0.31
Fragilaria intermedia v. fallax	43.1	1.34
Fragilaria pinnata	29.8	0.93
Fragilaria sp.	3.3	0.10
Fragilaria vaucheriae	3.3	0.10
Gloeocystis planctonica	6.6	0.21
Gloeocystis sp.	149.2	4.64
Gomphosphaeria lacustris	663.2	20.64
Green cells, undetermined	16.6	0.52
Green coccoid, unknown	3.3	0.10
Melosira granulata	16.6	0.52
Melosira italica	3.3	0.10
Mougeotia sp.	3.3	0.10
Navicula capitata	16.6	0.52
Navicula latens	3.3	0.10
Navicula platystoma v. pantocsekii	3.3	0.10
Navicula sp.	3.3	0.10
Nitzschia acicularis	26.5	0.83
Nitzschia fonticola	19.9	0.62
Nitzschia kuetzingiana	3.3	0.10
Nitzschia paleacea	9.9	0.31
Nitzschia recta	3.3	0.10
Nitzschia sp.	59.7	1.86
Nitzschia sp. #1	3.3	0.10
Ochromonas sp.	199.0	6.19
Pediastrum simplex v. duodenarium	26.5	0.83
Pennate diatom (undetermined)	6.6	0.21
Pinnularia sp.	3.3	0.10
Rhoicosphenia curvata	3.3	0.10
Scenedesmus bicellularis	13.3	0.41
Scenedesmus dimorphus	9.9	0.31
Scenedesmus quadricauda v. longispina	13.3	0.41
Scenedesmus quadricauda v. longispina f.	26.5	0.83
Scenedesmus sp.	89.5	2.79
Stephanodiscus alpinus	16.6	0.52
Stephanodiscus minutus	9.9	0.31
Stephanodiscus sp.	43.1	1.34
Stephanodiscus subtilis	16.6	0.52
Stephanodiscus tenuis	3.3	0.10
Surirella angusta	3.3	0.10
Synedra delicatissima v. angustissima	3.3	0.10
Synedra filiformis	29.8	0.93
Tabellaria fenestrata v. intermedia	43.1	1.34
Total	3213.3	100.0

14 OCT 76 SDC 7-3

Number of forms = 69
Temperature(C) = ---

Diversity = 4.04
Counted by: S.K.

Taxon	Cells/ml	Percent	Taxon	Cells/ml	Percent
Acanthochloris sp.	8.3	0.26	Melosira italica	9.9	0.31
Achnanthes clevei v. rostrata	1.7	0.05	Navicula decussis	1.7	0.05
Amphipleura pellucida	16.6	0.52	Navicula latens	1.7	0.05
Amphora ovalis	1.7	0.05	Navicula micropupula	1.7	0.05
Amphora rotunda	1.7	0.05	Navicula sp.	3.3	0.10
Amphora sp.	1.7	0.05	Navicula tripunctata	1.7	0.05
Anacystis thermalis	9.9	0.31	Nitzschia acicularis	1.7	0.05
Asterionella formosa	286.8	9.07	Nitzschia acuta	1.7	0.05
Botryococcus braunii	41.5	1.31	Nitzschia bacata	1.7	0.05
Centric diatom, unknown	81.2	2.57	Nitzschia capitellata	1.7	0.05
Ceratium hirundinella	1.7	0.05	Nitzschia fonticola	8.3	0.26
Chromulina parvula	5.0	0.16	Nitzschia kuetzingiana	8.3	0.26
Chrysophycean flagellate spp.	34.8	1.10	Nitzschia palea	3.3	0.10
Crucigenia quadrata	46.4	1.47	Nitzschia paleacea	5.0	0.16
Cryptomonas sp.	53.1	1.68	Nitzschia spiculoides	1.7	0.05
Cyclotella auxospore	6.6	0.21	Nitzschia sp.	6.6	0.21
Cyclotella comensis	131.0	4.14	Nitzschia sp. #1	5.0	0.16
Cyclotella kuetzingiana	14.9	0.47	Nitzschia sublinearis	3.3	0.10
Cyclotella meneghiniana	1.7	0.05	Ochromonas sp.	79.6	2.52
Cyclotella michiganiana	46.4	1.47	Pediastrum sp.	14.9	0.47
Cyclotella stelligera	5.0	0.16	Pennate diatom (undetermined)	5.0	0.16
Diatoma tenue v. elongatum	8.3	0.26	Rhizosolenia eriensis	1.7	0.05
Dinoflagellates	6.6	0.21	Scenedesmus acuminatus	16.6	0.52
Flagellates	591.9	18.71	Scenedesmus quadricauda v. longispina	6.6	0.21
Fragilaria capucina	6.6	0.21	Stephanodiscus #10	5.0	0.16
Fragilaria construens	6.6	0.21	Stephanodiscus minutus	18.2	0.58
Fragilaria crotonensis	616.8	19.50	Stephanodiscus subtilis	9.9	0.31
Fragilaria intermedia	59.7	1.89	Stephanodiscus tenuis	8.3	0.26
Fragilaria pinnata	6.6	0.21	Surirella angusta	5.0	0.16
Gloeocystis planctonica	109.4	3.46	Synedra acus	1.7	0.05
Gloeocystis sp.	16.6	0.52	Synedra delicatissima v. angustissima	1.7	0.05
Gomphonema olivaceum	1.7	0.05	Synedra filiformis	16.6	0.52
Gomphosphaeria lacustris	381.4	12.05	Tabellaria fenestrata v. intermedia	177.4	5.61
Kirchneriella sp.	94.5	2.99	Tetrastrum staurogeniaeforme	5.0	0.16
Melosira granulata	18.2	0.58			
			Total	3163.6	100.0